



State of Ohio Environmental Protection Agency

Southeast District Office

2195 Front Street
Logan, Ohio 43138

TELE: (740) 385-8501 FAX: (740) 385-6490
www.epa.state.oh.us

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

October 26, 2007

Re: Jefferson County
Cardinal Operating Company
Compliance Evaluation Inspection
Correspondence (IWW)

Mr. Doug Shearn, Plant Manager
Cardinal Operating Company
306 County Road 7E
Brilliant, Ohio 43913

Dear Mr. Shearn:

On October 11, 2007, Ohio EPA conducted a Compliance Evaluation Inspection at the Cardinal Operating Company plant in Brilliant. The purpose of the inspection was to determine compliance with terms and conditions of National Pollutant Discharge Elimination System (NPDES) permit number 01B00009*PD and evaluate the wastewater treatment systems performance. Overall the plant appeared to be operating in compliance.

The following list summarizes violations which have been reported through Monthly Operating Reports (MORs) since the effective date of the current permit (April 1, 2007) including current reported data:

Reporting Period	Station	Reporting Code	Parameter	Limit Type	Limit	Reported Value	Violation Date
April 2007	001	50060	Chlorine, Total Residual	1D Conc	0.2	.28	4/9/2007

A fly ash line leading from the plant near Units 1 & 2 and heading to the fly ash reservoir leaked from the Route 7 crossing into Riddle's Run. The Fly Ash line was reportedly associated with Unit 2 and the unit was taken out of service. The unit was scheduled to be taken out of service to allow connection to the scrubber. The lines were reportedly installed in duplicate for each unit and have crossover capabilities. The broken line was reported to be replaced as soon as possible. The incident was reported and a follow up letter received detailing the fly ash line spill. Operator rules are now in effect and a Class A operator of record will be a requirement in the pending permit application. The sanitary treatment plants require an operator of record in accordance with the new rules with various Classifications and staffing requirements.

We ask that correspondence be sent to our office within 14 calendar days regarding completion of the fly ash line replacement at the Route 7 crossing. Please provide us with details on the pipe material, diameter, length of replacement, etc. along with the completion date for the replacement/repair. Also, include any maintenance overviews of the condition of the fly ash slurry lines which may gauge the cross-sectional wear at various locations along the length of the slurry lines and what efforts are being taken to avoid similar failures. Due to the nature of many of lines being installed at the same time with similar wear and tear experienced, we fear that another incident is likely to occur. Thus, the agency is interested in what measures Cardinal Operating Company is taking to curb another slurry line failure.

A copy of our inspection report is enclosed. The assistance and cooperation received during the inspection was appreciated. If you have any questions, please feel free to contact me at (740) 380-5272.

Sincerely,



Aaron Pennington
District Representative
Division of Surface Water

AP/dh

Enclosure

c: Chuck Hewitt, Cardinal Operating Company
c: Dave Luchtenburg, AEP

NPDES
Compliance Inspection Report

A. NATIONAL DATA SYSTEM CODING

Permit No.	NPDES No.	Date	Inspection Type	Inspector	Facility Type
0IB00009*PD	OH0012581	October 11, 2007	C	S	2

B. FACILITY DATA

Name and Location of Facility Inspected	Entry Time	Permit Effective Date
Cardinal Operating Company 306 County Road 7E Brilliant, Jefferson County, OH	~10:00 A.M.	April 1, 2007
	Exit Time	Permit Expiration Date
	~2:00 P.M.	July 31, 2007

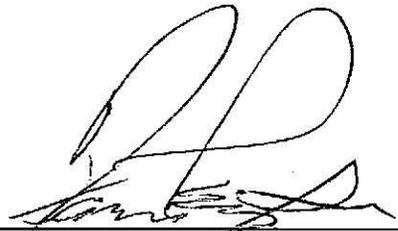
Name(s) and Title(s) of On-Site Representative(s)	Phone Number(s)
Chuck Hewitt, Plant Environmental Coordinator	(740) 598-6511
Jim Evans, Production Service Leader	(740) 598-6552
Dave Luchtenburg, AEP Service Coordinator	(614) 716-1662
Name, Address and Title of Responsible Official	Phone Number
Doug Shearn, Plant Manager	(740) 598-6500

C. AREAS EVALUATED DURING INSPECTION

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

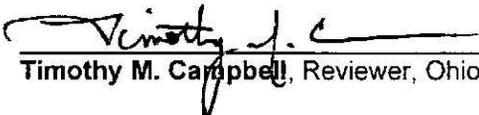
(S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated)

D. SUMMARY OF FINDINGS/COMMENTS (attach additional sheets if necessary)
See attached cover letter.



Aaron Pennington, Inspector, Ohio EPA, Southeast District Office

10-22-07
Date



Timothy M. Campbell, Reviewer, Ohio EPA, Southeast District Office

10/26/07
Date

E. PERMIT VERIFICATION

Inspection Observations Verify the Permit	Yes	No	N/A	N/E
a. Correct name and mailing address of permittee	X			
b. Correct name and location of receiving waters	X			
c. Product(s) and production rates conform with permit application (industries)	X			
d. Flows and loadings conform with NPDES permit	X			
e. Treatment processes are as described in permit application/briefing memo	X			
f. New treatment process(es) added since last inspection	X ¹			
g. Notification given to state of new, different, or increased discharges	X			
h. All discharges are permitted	X			
i. Number and location of discharge points are as described in permit	X			

¹ JBR scrubber is currently being installed with recovery tanks and a chloride purge stream WWTP being constructed. Startup of system will occur when Unit 2 is brought back online in approximately December of this year 2007.

F. COMPLIANCE SCHEDULES/VIOLATIONS

	Yes	No	N/A	N/E
a. Any significant violations since the last inspection	X ¹			
b. Permittee is taking actions to resolve violations	X			
c. Permittee has compliance schedule		X		
d. Compliance schedule contained in:			X	
e. Permittee is meeting compliance schedule			X	

¹ Total residual chlorine violation was reported at outfall 001 with reported 1 day concentration of 0.28 mg/L which exceeds the 0.20 mg/L limit in the permit. Also, a fly ash line leading from the plant and heading to the fly ash reservoir leaked from the Route 7 crossing into Riddle's Run. The Fly Ash line was reportedly associated with Unit 2 and the unit was taken out of service. The unit was scheduled to be taken out of service to allow connection to the scrubber. The fly ash handling lines were reportedly installed in duplicate for each unit and have crossover capabilities. The line was to be replaced ASAP.

G. OPERATION AND MAINTENANCE

Treatment Facility Properly Operated and Maintained	Yes	No	N/A	N/E
a. Standby power available:			X	
b. Adequate alarm system available for power or equipment failures	X			
c. All treatment units in service other than backup units	X			
d. Sufficient operating staff provided: # of shifts <u>3</u> Days/Week <u>7</u>	X			
e. Operator holds unexpired license of class required by permit Class:			X ¹	
f. Routine and preventive maintenance schedule/performed on time:	X			
g. Any major equipment breakdown since last inspection		X ²		
h. Operation and maintenance manual provided and maintained				X
i. Any plant bypasses since last inspection		X		
j. Regulatory agency notified of bypasses:			X	
k. Any hydraulic and/or organic overloads experienced since last inspection		X		

¹ Future permit will most likely require a Class A operator of record for the sanitary treatment plants.

² Fly Ash line described in part F (above).

Collection System	Yes	No	N/A	N/E
a. Percent combined system: 0%			X	
b. Any collection system overflows since last inspection (CSO ____ SSO ____)			X	
c. Regulatory agency notified of overflow (SSOs)			X	
d. CSO O and M plan provided and implemented			X	
e. CSOs monitored and reported in accordance with permit			X	
f. Portable pumps used to relieve system			X	
g. Lift station alarm systems provided and maintained			X	
h. Are lift stations equipped with permanent standby power or equivalent			X	
i. Is there an inflow/infiltration problem (separate sewer system), or were there any major repairs to collection system since last inspection			X	
j. Any complaints received since last inspection of basement flooding			X	
k. Are any portions of the sewer system at or near capacity			X	

Comments:

1. SLUDGE MANAGEMENT

a. Sludge Management Plan (SMP): _____ Submitted Date _____
 _____ Approval Number _____
 _____ Not submitted _____
 X N/A

	Yes	No	N/A	N/E
b. Sludge Management Plan current			X	
c. Sludge adequately disposed	X ¹			
d. If sludge is incinerated, where is ash disposed of?			X	
e. Is sludge disposal contracted?				X
f. Has amount of sludge generated changed significantly since last inspection		X		
g. Adequate sludge storage provided at plant				X
h. Land application sites monitored and inspected per SMP				X
i. Records kept in accordance with state and federal law				X
j. Any complaints received in last year regarding sludge		X		
k. Is sludge adequately processed	X			

¹ Fifty percent of FGD/Gypsum is to go to a new landfill atop the old Fly ash reservoir #1. The other 50% is to go to a wallboard factory via barge.

I. SELF-MONITORING PROGRAM

Part 1 - Flow Measurement		Yes	No	N/A	N/E
a.	Primary flow measuring device properly operated & maintained. Type of device: <input checked="" type="checkbox"/> ultrasonic & parshall flume <input checked="" type="checkbox"/> calculated from influent at 001 <input type="checkbox"/> weir <input type="checkbox"/> Other <input type="checkbox"/> ultrasonic & weir <input type="checkbox"/> Specify: _____	X			
b.	Calibration frequency adequate (date of last calibration: varies)	X			
c.	Secondary instruments (totalizers, recorders etc.) properly operated and maintained	X			
d.	Flow measurement equipment adequate to handle expected ranges of flows	X			
e.	Actual flow discharged is measured	X			
f.	Flow measuring equipment inspection frequency: <input checked="" type="checkbox"/> Daily <input type="checkbox"/> Weekly <input type="checkbox"/> Monthly <input type="checkbox"/> Other				

Part 2 - Sampling		Yes	No	N/A	N/E
a.	Sampling location(s) are as specified by permit	X			
b.	Parameters and sampling frequency agree with permit	X			
c.	Permittee uses required sampling method	X			
d.	Sample collection procedures are adequate	X			
i.	Samples refrigerated during compositing	X			
ii.	Proper preservation techniques used				
	Conform with 40 CFR 136.3				X
e.	Monitoring records (e.g., flow, pH, D.O., etc.) maintained for a minimum of three years including all original strip chart recordings (e.g., continuous monitoring instrumentation, calibration, and maintenance records)				X
f.	Adequate records maintained of sampling date, time, exact location, etc.				X

Part 3, Laboratory - General		Yes	No	N/A	N/E
a.	EPA approved analytical testing procedures used (40 CFR 136.3)	X			
b.	If alternate analytical procedures are used, proper approval has been obtained				X
c.	Analyses being performed more frequently than required by permit				X
d.	If (c) is yes, are results reported in permittee's self-monitoring report				X
e.	Commercial laboratory used				
1.	Parameters analyzed by commercial lab: Hg and various others go to AEP's Columbus lab	X			

Part 3, Laboratory - Quality Control/Quality Assurance		Yes	No	N/A	N/E
f.	Quality assurance manual provided and maintained				X
g.	Satisfactory calibration and maintenance of instruments and equipment				X
h.	Adequate records maintained				X
i.	Results of latest U.S. EPA quality assurance performance sampling program:				

Jim Evans had reported that they had participated in the latest DMR/QA achieving satisfactory in all the necessary parameters.

J. EFFLUENT/RECEIVING WATER OBSERVATIONS

Outfall	Oil Sheen	Grease	Turbidity	Visible Foam	Visible Float Solids	Color	Other
001	None	None	None	None	None	Same as intake	
006	None	None	None	None	None	None	
008	None	None	None	None	None	None	
019	None	None	chalky	None	None	Slightly chalky	

Comments:

K. MULTIMEDIA OBSERVATIONS

		Yes	No	N/A	N/E
a.	Are there indications of sloppy housekeeping or poor maintenance in work and storage areas or laboratories		X		
b.	Do you notice staining or discoloration of soils, pavement, or floors		X		
c.	Do you notice distressed (unhealthy, discolored, dead) vegetation		X		
d.	Do you see unidentified dark smoke or dustclouds coming from sources		X		
e.	Do you notice any unusual odors or strong chemical smells	X ¹			
f.	Do you see any open or unmarked drums, unsecured liquids, or damaged containment facilities		X		

¹There was a strong ammonia-like smell around the Unit 3 SCR urea handling areas.