



State of Ohio Environmental Protection Agency

Southeast District Office

2195 Front Street
Logan, Ohio 43138

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www.epa.state.oh.us

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

April 10, 2008

Re: Harrison County
Village of Cadiz
Compliance Evaluation Inspection
Ohio EPA Permit No. 0PB00009*DD
NPDES Permit No. OH0024295
Correspondence (PWW)

Mayor and Council
Village of Cadiz
128 Court Street
Cadiz, Ohio 43907

Dear Mayor and Council:

On February 27, 2008, I conducted a Compliance Evaluation Inspection of your wastewater treatment facility located along US Route 250 South, Cadiz, Ohio. Jacob Howdyshell of Ohio EPA, Division of Surface Water - Central Office, was present. Mr. Tom Carter, Superintendent, and Ryan McCann were present and represented the Village. The purpose of the inspection was to determine the village's status of compliance with the NPDES discharge permit referenced above.

On the day of the inspection, all treatment units were operating properly, with the exception of the back-up clarifier which was not in operation. The trickling filter arms do not function as well as they should, lacking splash plates at some ports. The trickling filters reportedly freeze during the extreme cold periods of winter. The effluent appeared satisfactory at the final outlet (weir), but there were some patches of sewage bacteria noted in the concrete outlet channel upstream of the flowmeter. The outfall at the receiving stream was inspected later in the day, just prior to the time I left the Cadiz area. There were small patches of sewage bacteria noted in some places on the base of the stream along the plant side of the receiving stream, downstream of the outfall.

The treatment facility receives too much infiltration and inflow of clean water sources during periods of heavy rain. This causes the treatment system to be overwhelmed and to violate discharge limitations. In addition, the trunk lines, primarily the north, but also the south trunk line, receive too much water during heavy rains, and this results in overflows at manholes and also results in trunk line breaks. Wastewater then is discharged to the surface of the ground and to the area streams. Each time an overflow of the sanitary sewer system occurs, this is a violation of the NPDES permit. You have reported numerous overflows of the sanitary sewer system during such periods of high flows, for many years. This situation must be corrected. Infiltration and inflow reduction and a renovation of portions of the sanitary sewer system must be undertaken soon. The NPDES discharge permit, Part I (C) schedule of compliance, required you to study

the infiltration/inflow, and reduce it. You have not achieved this, but have currently been making progress. We have held regular meetings with you regarding this. Please continue with your efforts in this. *You must submit a brief monthly progress report on this subject to this office, as required by the permit.*

Parts of the treatment facility are aged. The Imhoff tank and the flow distribution box following the Imhoff tank, exhibit concrete deterioration. This is a violation of the conditions of the NPDES discharge permit, because the permit states in Part III (3) (A) that "At all times, the permittee shall maintain in good working order and operate as efficiently as possible all treatment or control facilities or systems installed or used by the permittee necessary to achieve compliance with the terms and conditions of this permit." See the attached photos. Some were taken during prior inspections on July 11, 2005, and on November 2, 2005.

The treatment facility must be upgraded, so that the Imhoff tank, distribution box, and trickling filters are refurbished or replaced with new treatment systems. Other units may also need to be upgraded. This must be done soon, due to the condition of the units. I believe you should begin design for this now, so that construction can begin as soon as possible. This requirement to rehabilitate and/or upgrade is not dependent upon your ability to receive government funding for the project. You must do this regardless of funding availability. *Please retain the services of an engineer to evaluate the condition of the treatment units and provide a brief report with some preliminary options for upgrade (with rough cost estimates), to this office by June 1, 2008.* When the flow studies you are planning are underway, and you have some results, you will know more regarding how to size any upgraded treatment facility, and when to proceed with an upgrade.

Also, the sludge handling facilities may not be adequate for meeting Ohio's current sewage sludge disposal rules. *Please have your engineer study any necessary improvements to sludge handling and their rough costs, and provide this in your report to us.*

Due to the difficulty in achieving clean water source reduction in aging collection systems, some communities have merely designed an upgraded plant that can take the hydraulic design flow of the collection system. The plant upgrade is completed first and then the process to remove clean water sources from the collection system becomes an ongoing effort into the future years. You may want to take this approach. We can discuss plant design options with you for dealing with heavy wet weather flows.

Jacob Howdysshell conducted a concurrent inspection for the purpose of determining Cadiz' compliance with Ohio's sewage sludge disposal rules. He has covered his findings in a separate letter to you, which you should have received.

An automated review of your self-monitoring reports (Discharge Monitoring Reports or "DMR's") covering the months of March, 2007 thru February, 2008, indicates many violations of the conditions of your NPDES permit. The specific instances of noncompliance and/or deficiencies are as follows:

Permit No	Reporting Period	Station	Reporting Code	Parameter	Limit Type	Limit	Reported Value	Violation Date
0PB00009*DD	March 2007	001	80082	CBOD 5 day	30D Qty	23	25.7228	3/1/2007
0PB00009*DD	March 2007	001	80082	CBOD 5 day	7D Qty	34	34.7832	3/8/2007
0PB00009*DD	March 2007	001	00530	Total Suspended Solids	7D Qty	41	45.6881	3/15/2007
0PB00009*DD	March 2007	001	80082	CBOD 5 day	7D Qty	34	41.2775	3/15/2007
0PB00009*DD	May 2007	001	00530	Total Suspended Solids	30D Conc	12	20.4	5/1/2007
0PB00009*DD	May 2007	001	00530	Total Suspended Solids	30D Qty	27	42.0364	5/1/2007
0PB00009*DD	May 2007	001	00610	Nitrogen, Ammonia (NH3)	30D Conc	4	8.323	5/1/2007
0PB00009*DD	May 2007	001	00610	Nitrogen, Ammonia (NH3)	30D Qty	9.1	17.3415	5/1/2007
0PB00009*DD	May 2007	001	80082	CBOD 5 day	30D Conc	10	17.5	5/1/2007
0PB00009*DD	May 2007	001	80082	CBOD 5 day	30D Qty	23	35.6810	5/1/2007
0PB00009*DD	May 2007	001	00530	Total Suspended Solids	7D Conc	18	38.	5/8/2007
0PB00009*DD	May 2007	001	00530	Total Suspended Solids	7D Qty	41	87.7768	5/8/2007
0PB00009*DD	May 2007	001	00610	Nitrogen, Ammonia (NH3)	7D Conc	6	13.215	5/8/2007
0PB00009*DD	May 2007	001	00610	Nitrogen, Ammonia (NH3)	7D Qty	14	31.5751	5/8/2007
0PB00009*DD	May 2007	001	80082	CBOD 5 day	7D Conc	15	23.	5/8/2007
0PB00009*DD	May 2007	001	80082	CBOD 5 day	7D Qty	34	51.5212	5/8/2007
0PB00009*DD	May 2007	001	00610	Nitrogen, Ammonia (NH3)	7D Conc	6	10.645	5/15/2007
0PB00009*DD	May 2007	001	00610	Nitrogen, Ammonia (NH3)	7D Qty	14	23.1796	5/15/2007
0PB00009*DD	May 2007	001	80082	CBOD 5 day	7D Conc	15	26.5	5/15/2007
0PB00009*DD	May 2007	001	80082	CBOD 5 day	7D Qty	34	55.8781	5/15/2007
0PB00009*DD	May 2007	001	00530	Total Suspended Solids	7D Conc	18	19.5	5/22/2007
0PB00009*DD	May 2007	001	00610	Nitrogen, Ammonia (NH3)	7D Conc	6	10.845	5/22/2007
0PB00009*DD	May 2007	001	00610	Nitrogen, Ammonia (NH3)	7D Qty	14	18.7826	5/22/2007
0PB00009*DD	May 2007	001	80082	CBOD 5 day	7D Conc	15	22.	5/22/2007
0PB00009*DD	May 2007	001	80082	CBOD 5 day	7D Qty	34	38.1492	5/22/2007
0PB00009*DD	August 2007	001	00530	Total Suspended Solids	7D Qty	41	63.6321	8/15/2007
0PB00009*DD	September 2007	001	00610	Nitrogen, Ammonia (NH3)	30D Conc	4	5.36625	9/1/2007
0PB00009*DD	September 2007	001	00610	Nitrogen, Ammonia (NH3)	7D Conc	6	7.08	9/22/2007
0PB00009*DD	October 2007	001	00530	Total Suspended Solids	30D Conc	12	18.4	10/1/2007
0PB00009*DD	October 2007	001	00530	Total Suspended Solids	30D Qty	27	39.4588	10/1/2007
0PB00009*DD	October 2007	001	00610	Nitrogen, Ammonia (NH3)	30D Conc	4	5.37	10/1/2007
0PB00009*DD	October 2007	001	00610	Nitrogen, Ammonia (NH3)	7D Conc	6	6.715	10/8/2007
0PB00009*DD	October 2007	001	00530	Total Suspended Solids	7D Conc	18	58.5	10/22/2007
0PB00009*DD	October 2007	001	00530	Total Suspended Solids	7D Qty	41	146.010	10/22/2007
0PB00009*DD	November 2007	001	80082	CBOD 5 day	30D Conc	10	11.375	11/1/2007
0PB00009*DD	November 2007	001	80082	CBOD 5 day	7D Conc	15	16.5	11/1/2007

Permit No	Reporting Period	Station	Reporting Code	Parameter	Limit Type	Limit	Reported Value	Violation Date
0PB00009*DD	December 2007	001	00530	Total Suspended Solids	30D Conc	12	15.125	12/1/2007
0PB00009*DD	December 2007	001	00530	Total Suspended Solids	30D Qty	27	40.9455	12/1/2007
0PB00009*DD	December 2007	001	00530	Total Suspended Solids	7D Qty	41	44.1533	12/1/2007
0PB00009*DD	December 2007	001	00530	Total Suspended Solids	7D Conc	18	24.	12/15/2007
0PB00009*DD	December 2007	001	00530	Total Suspended Solids	7D Qty	41	58.9233	12/15/2007
0PB00009*DD	January 2008	001	00530	Total Suspended Solids	30D Conc	12	14.3	1/1/2008
0PB00009*DD	January 2008	001	00530	Total Suspended Solids	30D Qty	27	36.0972	1/1/2008
0PB00009*DD	January 2008	001	80082	CBOD 5 day	30D Qty	23	23.7665	1/1/2008
0PB00009*DD	January 2008	001	00530	Total Suspended Solids	7D Conc	18	25.	1/8/2008
0PB00009*DD	January 2008	001	00530	Total Suspended Solids	7D Qty	41	72.0122	1/8/2008
0PB00009*DD	January 2008	001	80082	CBOD 5 day	7D Qty	34	36.0061	1/8/2008
0PB00009*DD	February 2008	001	00530	Total Suspended Solids	30D Conc	12	14.	2/1/2008
0PB00009*DD	February 2008	001	00530	Total Suspended Solids	7D Conc	18	20.5	2/1/2008
0PB00009*DD	February 2008	001	00530	Total Suspended Solids	30D Qty	27	46.4442	2/1/2008
0PB00009*DD	February 2008	001	00530	Total Suspended Solids	7D Qty	41	80.1000	2/1/2008
0PB00009*DD	February 2008	001	00530	Total Suspended Solids	7D Qty	41	48.5944	2/8/2008

In addition, for this time period, there were many frequency violations, which are instances of not sampling or reporting at the correct monitoring frequency, as required by the permit.

Please be advised that we are recommending formal enforcement action for the village's failure to properly collect and treat all wastewater, to comply with the effluent limitations and to satisfy the monitoring and reporting requirements of your NPDES permit.

Overall, the collection system and many aspects of the treatment facility are in poor physical condition due to age and must be repaired or upgraded. The facility is not in compliance with the terms and conditions of the NPDES permit.

Please inform this office, in writing, within fourteen (14) days of receipt of this letter as to the reasons for the above referenced effluent violations, as well as a description of the actions taken or proposed to prevent any further violations. Your response should include the dates, either actual or proposed, for completion of the actions. Please also provide in the same letter, your response to the above inspection comments.

Village of Cadiz
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Please see the attached report and photos.

If there are any questions, please contact me at (740) 380-5218.

Sincerely,



Dan Messerly
District Staff Engineer
Division of Surface Water

DM/dh

Enclosures

NPDES
Compliance Inspection Report

A. NATIONAL DATA SYSTEM CODING

Permit No.	NPDES No.	Date	Inspection Type	Inspector	Facility Type
0PB00009*DD	OH0024295	February 27, 2008	C	S	1

B. FACILITY DATA

Name and Location of Facility Inspected	Entry Time	Permit Effective Date
Village of Cadiz Wastewater Treatment Facility U.S. Route 250 South Cadiz, Ohio	10:15 a.m.	August 1, 2001
	Exit Time	Permit Expiration Date
	late afternoon	July 31, 2006

Name(s) and Title(s) of On-Site Representative(s)	Phone Number(s)
Tom Carter, Superintendent	(740) 942-3884 (at WTP)
Name, Address and Title of Responsible Official	Phone Number
Mayor and Council Village of Cadiz 128 Court Street Cadiz, Ohio 43907	(740) 942-8844

C. AREAS EVALUATED DURING INSPECTION

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

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

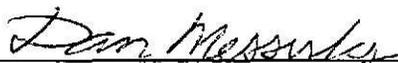
D. SUMMARY OF FINDINGS/COMMENTS (attach additional sheets if necessary)

See attached letter

*O&M by staff is satisfactory, but facility needs rehabilitation. See cover letter.

**Major parameters analyzed by outside lab.

***See letter from Central Office staff.


Dan Messerly, Inspector, Ohio EPA, Southeast District Office

4/10/08
Date


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

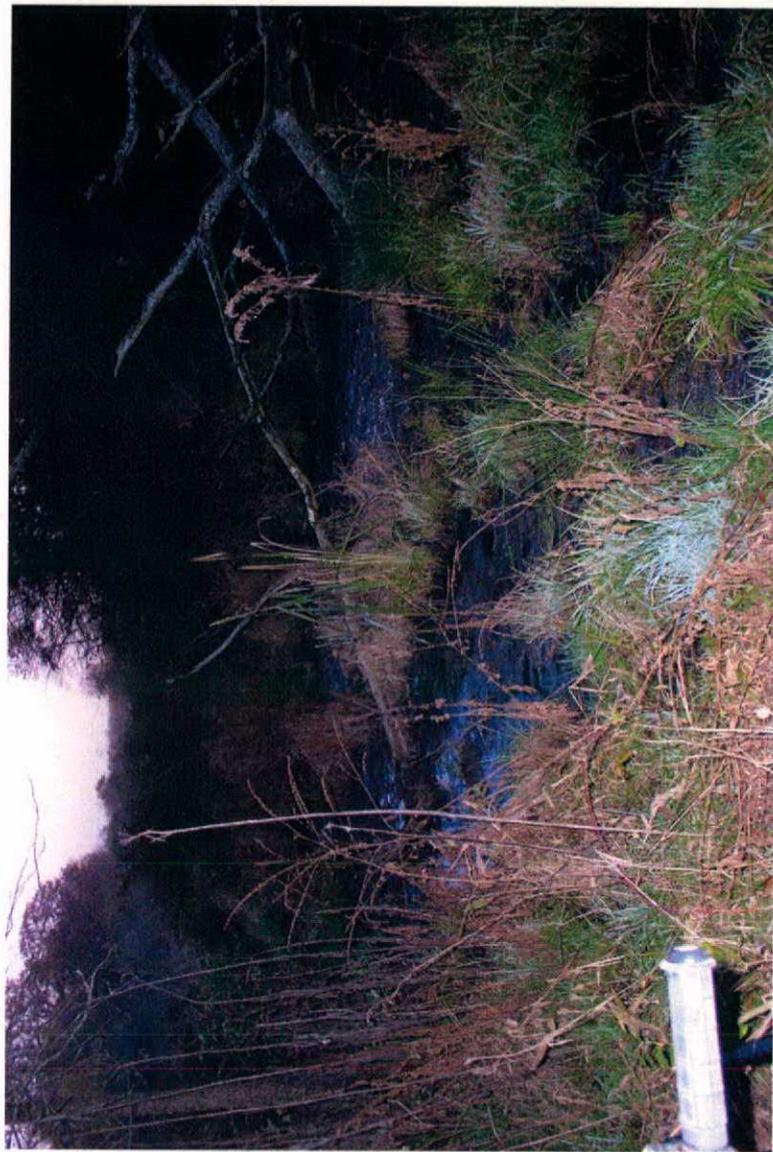
4/11/08
Date



Harrison
Village of Cadiz WWT
2-27-08
DPM-



Harrison
Cadiz
A.M.



taken: Nov. 2, 2005
location: off Van Fossen Rd.
North Trunk Line Area
Van Fossen Complaint



John Hawthorne Complaint SR250 7/11/05



Cadiz C.E.I., 7/11/05 D.G.M.

