



**Environmental
Protection Agency**

Ted Strickland, Governor
Lee Fisher, Lt. Governor
Chris Korleski, Director



1PB0003720081020

CHAMPAIGN MECHANICSBURG WWTP

REYNOLDS, JOSEP 2008/10/20





State of Ohio Environmental Protection Agency

Southwest District Office

401 E. Fifth St.
Dayton, Ohio 45402

TELE: (937) 285-6357 FAX: (937) 285-6249
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Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

October 17, 2008

Mayor and Village Administrator
Village of Mechanicsburg
18 North Main Street
Mechanicsburg, Ohio 43044

RE: Mechanicsburg Compliance Evaluation Inspection / Notice of Violation

Dear Mayor and Administrator:

On September 18, 2008 Michelle Waller and Joe Reynolds performed a Compliance Evaluation Inspection at the Mechanicsburg Waste water Treatment Plant.

The inspection was performed to determine the village's compliance status with respect to their NPDES permit and Findings and Orders. The village is currently in significant non-compliance with the Findings and Orders.

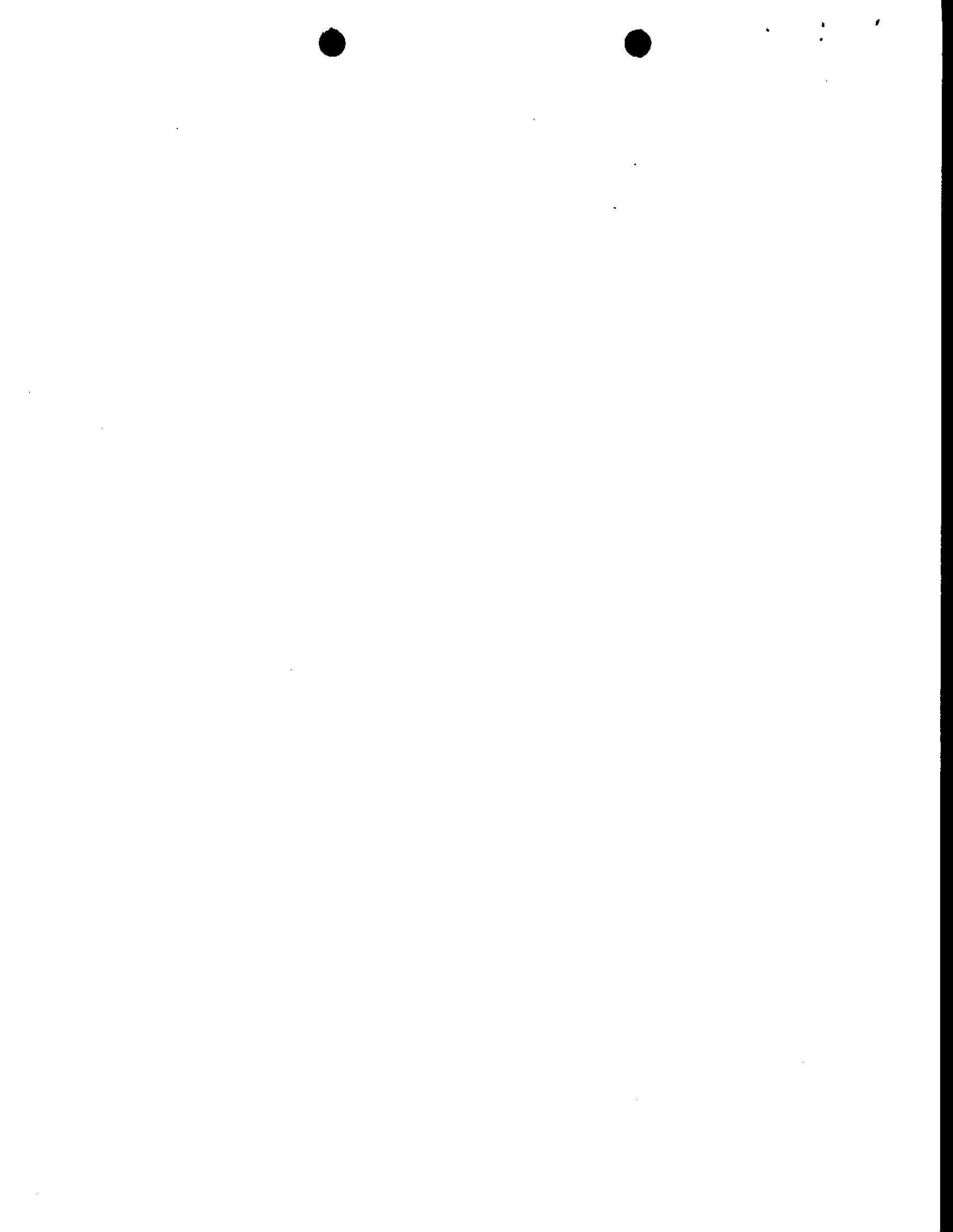
The inspection findings are included in the attached report. The report contains several items which require a response. The response dates for each of the items are noted in the " Items Requiring a Response" section of the report.

If you have any question concerning the inspection please contact Mr. Reynolds at (937) 285 - 6097.

Sincerely,

Martyn Burt
Compliance Supervisor
Division of Surface Water

cc: John Grosse, Stantec
Wendell Cornelison, Maintenance Supervisor





State of Ohio Environmental Protection Agency
Southwest District Office

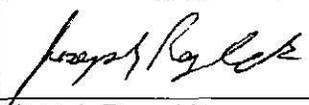
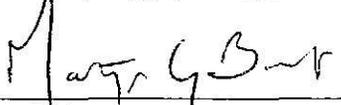
NPDES Compliance Inspection Report

Section A: National Data System Coding					
Permit #	NPDES#	Month/Day/Year	Inspection Type	Inspector	Facility Type
1PB00037	OH0022209	9/18/2008	C	S	1

Section B: Facility Data		
Name and Location of Facility Inspected	Entry Time	Permit Effective Date
Village of Mechanicsburg 90 Mill Street Mechanicsburg, Ohio 43044	9:30 AM	8/1/2007
	Exit Time	Permit Expiration Date
	1:15 PM	7/31/2012
Name(s) and Title(s) of On-Site Representatives	Phone Number(s)	
John Grosse, Operator of Record Wendell Cornelison, Maintenance Supervisor Greg Kimbell, Mayor ; Bill Farley, Council President	(614) 679 - 5647 (937) 834 - 3858	
Name, Address and Title of Responsible Official	Phone Number	
Mayor and Council 18 North Main Street Mechanicsburg, Ohio 43044	(937) 834 - 3187	

Section C: Areas Evaluated During Inspection					
(S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated)					
M	Permit	S	Flow Measurement	N	Pretreatment
M	Records/Reports	N	Laboratory	U	Compliance Schedule
M	Operations & Maintenance	U	Effluent/Receiving Waters	S	Self-Monitoring Program
S	Facility Site Review	S	Sludge Storage/Disposal	N	Other
M	Collection System				

Section D: Summary of Findings (Attach additional sheets if necessary)
See Attached Report.

Inspector	Reviewer
 Date: 10/17/08	 Date: 10/29/08
Joseph Reynolds Division of Surface Water Southwest District Office	Martyn Burt Compliance & Enforcement Supervisor Division of Surface Water Southwest District Office

Sections E thru K: Complete on all inspections as appropriate
Y – Yes, N – No, N/A – Not Applicable, N/E – Not Evaluated

Section E: Permit Verification

Inspection observations verify the permit

- (a) Correct name and mailing address of permittee Y
- (b) Correct name and location of receiving waters..... Y
- (c) Product(s) and production rates conform with permit application (Industries)..... N/A
- (d) Flows and loadings conform with NPDES permit..... Y
- (e) Treatment processes are as described in permit application... Y
- (f) New treatment process(es) added since last inspection..... Y
- (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/Status:

New automatic influent valves installed at the SBR splitter box.

Section E: Permit Verification

- (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) Compliance schedule contained in Findings and Orders
- (e) Permittee is meeting compliance schedule..... N

Comments/Status:

Section G: Operation & Maintenance

Treatment Works:

Treatment facility properly operated and maintained

- (a) Standby power available.....generator or dual feed Y
- (b) Adequate alarm system available for power or equipment failures.. N
- (c) All treatment units in service other than backup units..... Y
- (d) Operator holds unexpired license of class required by permit..... Y
Class: II
- (f) Routine and preventative maintenance schedule/performed on time..... Y
- (g) Any major equipment breakdown since last inspection..... Y
- (h) Operation and maintenance manual provided and maintained..... N
- (i) Any plant bypasses since last inspection..... N
- (j) Regulatory agency notified of bypasses..... N/A
On MORs and/or Spill Hotline (1-800-282-9378)
- (k) Any hydraulic and/or organic overloads since last inspection..... N

Collection System:

- (a) Percent combined system: 0%
- (b) Any collection system overflows since last inspection..... N
(CSO and/or SSO)
- (c) Regulatory agency notified of overflows (SSOs)..... N/A
- (d) CSO O&M plan provided and implemented..... N/A
- (e) CSOs monitored and reported in accordance with permit..... N/A
- (f) Portable pumps used to relieve system..... N
- (g) Lift station alarms provided and maintained..... N
- (h) Are lift stations equipped with permanent standby power or equivalent..... N
- (i) Is there an inflow/infiltration problem (separate sewer system), or were there any major repairs to collection system since last inspection..... Y
- (j) Any complaints received since last inspection of basement flooding N
- (k) Are any portions of the sewer system at or near capacity..... N

Comments/Status:

The standby generator can run the entire plant. John Grosse is the Operator of Record for the plant. John is a Class III certified operator. Some plant equipment is on an auto dialer alarm system. The system needs to be updated to address the entire plant. Equipment failures include: the decant controller, variable frequency drive motor, and a blower motor was replaced. The main liftstation has back-up power capabilities (portable generator). The western station does not.

Section H: Sludge Management

- (a) Sludge management plan (SMP)
Submitted date: Approval #: 05-203PW Not submitted N/A
- (b) Sludge management plan current..... N/A
- (c) Sludge adequately disposed..... Y
(Method:Land Application)
- (d) If sludge is incinerated, where is ash disposed of
- (e) Is sludge disposal contracted..... Y
(Name:Burch Hydro)
- (f) Has amount of sludge generated changed significantly since last inspection..... N
- (g) Adequate sludge storage provided at plant.....Y
- (h) Land application sites monitored and inspected per SMP..... Y
- (i) Records kept in accordance with State and Federal law..... Y
- (j) Any complaints received in last year regarding sludge..... N
- (k) Is sludge adequately processed (digestion, pathogen control)..... Y

Comments/Status:

The village has hauled sludge to the City of Urbana in the past. Currently the village land applies its sludge. No sludge has been hauled since 2006. The aerobic sludge digester provides over 1 year of storage.

Section I: Self-Monitoring Program

Flow Measurement:

- (a) Primary flow measuring device operated and maintained..... Y
Type of device: Ultrasonic & Parshall flume Ultrasonic & Weir Weir
Calculated from influent Other (Specify:V-notch weir with ultrasonic)
- (b) Calibration frequency adequate Y
(Date of last calibration:)
- (c) Secondary instruments operated and maintained.....Y
- (d) Flow measurement equipment adequate to handle full range of flows..... Y
- (e) Actual flow discharged is measured..... Y
- (f) Flow measuring equipment inspection frequency
Daily Weekly monthly other

Comments/Status:

Flow is measured at the post aeration (final tank).

Section I: Self-Monitoring Program (con't)

Sampling:

- (a) Sampling location(s) are as specified by permit..... Y
- (b) Parameters and sampling frequency agree with permit..... Y
- (c) Permittee uses required sampling method..... Y
- (d) Sample collection procedures are adequate..... Y
 - (i) Samples refrigerated during compositing..... Y
 - (ii) Proper preservation techniques used..... Y
 - (iii) Containers and sample holding times prior to analysis conform with 40 CFR 136.3..... Y
- (e) 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
- (f) Adequate records maintained of sampling date, time, location, etc.. Y

Laboratory:

General

- (a) EPA approved analytical testing procedures used (40 CFR 136.3).. N/E
 - (b) If alternate analytical procedures are used, proper approval has been obtained..... N/E
 - (c) Analyses being performed more frequently than required by permit. N/E
 - (d) If (c) is yes, are results in permittee's self-monitoring report..... N/E
 - (e) Commercial laboratory used..... N/E
- Parameters analyzed by commercial lab:

Lab name: Stantec Lab

Quality Control/Quality Assurance

- (f) Quality assurance manual provided and maintained..... N/E
- (g) Satisfactory calibration and maintenance of instruments/equipment. N/E
- (h) Adequate records maintained..... N/E
- (i) Results of latest USEPA quality assurance performance sampling program: Satisfactory Marginal Unsatisfactory

Date:

Comments/Status:

Influent samples are collected at splitter box prior to aeration. Effluent samples are collected at the post aeration (final tank).

Section J: Effluent/Receiving Water Observations

Outfall Number	Oil sheen	Grease	Turbidity	Visible Foam	Visible Floating Solids	Color	Other
001	none	none	none	slight	yes	none	NE

Comments/Status:

Section K: Multimedia Observations

- (a) Are there indications of sloppy housekeeping or poor maintenance in work and storage areas or laboratories..... N
- (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/Status:

Inspection Findings

The Village of Mechanicsburg currently holds National Pollutant Discharge Elimination System (NPDES) permit number 1PB00037*CD. The permit was issued on June 27, 2007 and it expires on July 31, 2012.

The treatment system consist of the following units, main lift station with muffin monster and bar rack, treatment plant bar screen, flow equalization lagoon, Sequential Batch Reactor, chlorination / dechlorination tank and post aeration tank.

The village currently contracts with Stantec for plant oversight. John Grosse (Class III waste water operator) is the Operator of Record in responsible charge of plant operations. Wendell Cornelison (working on Class I certification) is the Maintenance Superintendent.

The village is currently working on a 20 year plan for water and waste water treatment system upgrades. In order to generate additional funds the village has already raised sewer rates 30%. Over the next 4 years rates will increase an additional 3% each year.

Infiltration and inflow (I/I) into the collection system is contributing to peak flows at the plant. The village has an on-going I/I removal program. Over the past year the railroad street sewer was replaced and the main line into the plant lift station was replaced.

At the time of the inspection a contract had been signed with Burch Hydro to remove solids that have collected at the plant outfall from the back water portion of the Little Darby. The village is developing plans to move the outfall to the main channel.

Influent flows above 0.3 million gallons are equalized in the old treatment lagoons. The lagoons can provide up to 3.0 million gallons of storage.

The lagoon monitoring well system was sampled in April, 2006. The sampling frequency for the wells (quarterly samples were originally requested) is currently being evaluated.

Wendell Cornelison schedules monthly maintenance activities for the plant. Maintenance forms are used by plant staff when non-scheduled maintenance is required. Operation and Maintenance logs as required by Ohio Administrative Code 3745 – 7 – 09 are not being maintained (see attached).

Burch Hydro removed liquid sludge from the plant in October, 2006. No solids have been removed from the plant since this time. Solids are being stored in the aerobic digester and within the aeration system MLSS 3000 mg/l to 3500 mg/l. The village is looking at possibly hauling 20,000 gallons to the City of Urbana to create space until the sludge fields become available. An estimated 100,000 gallons will be land applied eventually.

Inspection Findings (continued)

The controller and variable frequency drive on SBR number one failed and were recently replaced. Chlorine was being fed (55 gallon drum) directly to the chlorine contact tank due to a break in the feed line.

Between June 1, 2007 and August 31, 2008 Mechanicsburg reported 125 final effluent violations. These violations include: 6 Fecal Coliform, 51 Suspended Solids, 6 CBOD, 19 Chlorine, 17 Ammonia, 11 phosphorus, 1 pH and 14 Dissolved Oxygen.

On August 4, 2005 the village agreed to Findings and Orders issued by the Director Ohio EPA in order to resolve non-compliance issues with their NPDES permit. A summary of the orders is as follows:

Mechanicsburg Findings and Orders August 4, 2005

Order #	Comp. Date	Order	Date Comp.
1.a	7 days (Aug. 11, 2005)	Record influent flows daily.	Comp./Pending
1.b	7 days (Aug. 11, 2005)	Record daily rainfall.	Comp./Pending
1.c	7 days (Aug. 11, 2005)	Record Lagoon Elev.	Comp./Pending
1.d	7 days (Aug. 11, 2005)	Submit WPCLF nom. form.	Viol. /Pending
1.e	30 days (Sept. 3, 2005)	Notification of vio. Of permit/ord.	Comp./Pending
1.f	120 days(Dec. 2, 2005)	Submit plan loan app.	Viol./Pending
1.g.	180 days(Jan. 31, 2006)	Gen. Plan for I/I & WWTP upgrade	Viol./Pending
1.h	365 days(Aug. 4, 2006)	Comp. PTI app. / schedule.	Viol./Pending
2.	90 days (Nov. 2, 2005)	Begin I/I evaluation.	11/01/2005
3.	90 days (Nov. 2, 2005)	Submit revised SMP.	Comp.
4.	90 days (Nov. 2, 2005)	Submit NPDES renewal.	05/30/2002
5.	210 days (Mar. 2, 2006)	Update O & M manual.	Viol./Pending
6.	See item 7	Pay \$7,276.00.	NA
7.	30 days (Sept. 3, 2005)	Pay \$2,200.00.	08/25/05

Mechanicsburg Findings and Orders August 4, 2005 (cont.)

- | | | | |
|-----|-------------------------|---------------------------------|------------|
| 8. | 30 days (Sept. 3, 2005) | either Pay \$ 5,076 or pay SEP. | 06/24/2005 |
| 9. | 30 days (After SEP) | Submit SEP completion doc. | NA |
| 10. | 30 days (No SEP) | Pay \$5,076 if SEP not comp. | NA |

The waste water treatment plant upgrades are being looked at as part of the 20 year planning the village is currently performing.

Please be advised all compliance schedule violations are significant violations. These violations need to be addressed immediately. The village will be contacted in the near future to begin negotiation of a revised compliance schedule.

Facility Inspection

Plant flows are pumped from the main lift station to a splitter box which divides flow between the two Sequential Batch Reactors. Both reactors are receiving influent on a continuous basis (Influent Continues Extended Aeration System (ICEAS) mode). New automated influent valves have been installed.

The temperature in the influent sampler was at 4 degrees.

Flows above 300,000 gallons are diverted to the equalization lagoon through a diversion pipe located in the splitter box. Equalized flows are returned to the system at a rate of 50 gpm. Chlorine is added to the return to control filaments.

The batch reactor was being mixed uniformly. The mixed liquor was dark brown. The MLSS was being maintained around 3000 mg/l until solids can be removed from the plant. There were floating solids on the surface of the tank in settle mode. Solids are manually wasted daily. The Programmable Logic Control is used to control treatment cycles during dry weather.

Three aeration blowers are used to provide air to the system. One serves the aeration tank, one serves the digester, and one is a back-up. All three were working at the time of the inspection.

The aerobic sludge digester was full. Solids will need to be removed as soon as possible.

Facility Inspection (cont.)

The post aeration tank had a dark tint. A light foam was forming. A fine black solid (ash) was noted leaving the tank. The post aeration mixer was repaired since the last inspection.

Effluent samples are collect at the post aeration tank. The sampler and sample lines were clean The sampler was being maintained at 4 degrees Celsius.

Due to time constraints the final outfall was not inspected.

Items Requiring a Response

1. The 20 year plan and preliminary implementation schedule need to be submitted to this office by no later than January 15, 2009. This plan must address treatment and collection system upgrades designed to bring the village back into compliance with their NPDES permit. The installation of a preliminary treatment system must be evaluated as part of the 20 year plan. This system must be designed to prevent preliminary solids from entering the secondary treatment system which then can pass through the system to the final outfall.
2. Solids which have collected at the final outfall must be collected and disposed at an approved treatment / disposal facility. Written verification as to the completion of this work must be provided by no later than November 15, 2008.
3. Operation and maintenance logs as required by Ohio Administrative Code 3745 – 7 – 09 must be maintained on site. Written verification as to the implementation of this records keeping must be provided by no later than November 15, 2008.
4. Written verification as to the date and amount of solids removed from the plant must be provided by no later than December 1, 2008.
5. Written verification as to the date the chlorine feed line was repaired must be provided by no later than December 1, 2008.