



State of Ohio Environmental Protection Agency

STREET ADDRESS:

Central District Office

MAILING ADDRESS:

Lazarus Government Center
50 W. Town St., Suite 700
Columbus, Ohio 43215

TELE: (614) 728-3778 FAX: (614) 728-3898
www.epa.state.oh.us

P.O. Box 1049
Columbus, OH 43216-1049

CERTIFIED MAIL # 91 7108 2133 3932 4450 8849

August 24, 2007

Re: Tussing Road Sewage Treatment Plant
Fairfield County Utilities
NPDES Permit: 4PU00004

Mr. Tony Vogel
Director of Utilities
Fairfield County Utilities Department
210 East Main Street
Room 302
Lancaster, OH 43130-3854

Dear Mr. Vogel:

Attached is the Compliance Evaluation Inspection Report conducted by Ohio EPA for the Fairfield County Utilities Department's Tussing Road Sewage Treatment Plant located at 10955 Tussing Road and operating under NPDES permit 4PU00004.

There are several items in the Attachment section of the report that **require a written response. Please respond in writing within 25 days of the receipt of this letter/report.**

Should you have any questions, please call me at 614- 728-3846.

Sincerely,

Larry Korecko
Environmental Specialist
Compliance and Enforcement
Division of Surface Water
Central District Office

Enclosure

c: Tom Bouts, Superintendent
Scott Helkowski, AGO

LK/ct Tussing Rd STP 07 cover letter CEI

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

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NPDES COMPLIANCE INSPECTION REPORT

Section A: National Data System Coding

Permit #	NPDES	Yr/Mo/Day	Insp. Type	Inspector	Fac Type
4PU00004	OH0054305	07/06/11	C	S	1
Watershed	Big Walnut				

Section B: Facility Data

Facility Name:	Tussing Road Water Reclamation (Fairfield County Commis	Entry Time	Permit Eff. Date
Address:	10955 Tussing Road		08/01/06
City/State/Zip:	Violet Twp, Fairfield County	Exit Time	Permit Exp. Date
			07/31/10

On-Site Representatives

Contract Operator-

Name: Tom Bouts
 Title: Superintendent
 Phone: 614-866-0898

Responsible Official

Name/Title: Tony Vogel, Director of Utilities
 Address: 210 East Main Street (Room 302), Lancaster, Ohio 43130-3854
 Phone: 740-687-7154

Section C: Areas Evaluated During Inspection:

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

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

Section D: Summary of Findings/Comments:

*See Attachment

- Pump station overflows need be reduced. An annual report is due on these.
- Compliance Scedule issues need to be resolved within permit appeal
- Sludge related odor issues need further investigation /remedies

Name of Inspector: Larry Korecko Ohio EPA, Central District Office

Signature: Larry Korecko Date: 8-21-07

Name of Reviewer: Erin Sherer Ohio EPA, Central District Office

Signature: Erin Sherer Date: 8/22/07

Sections E thru K: Complete on all inspections as appropriate. (N/A - Not Applicable N/E - Not Evaluated)

Section E. Permit Verification

	Yes	No	N/A	N/E
INSPECTION OBSERVATIONS VERIFY THE PERMIT				
(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 (Industrial)	_____	_____	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	_____	_____
(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 THE PERMIT	X	_____	_____	_____

COMMENTS/STATUS:
* See Attachment

Section F. Compliance Schedule and Violations

	Yes	No	N/A	N/E
(a) ANY SIGNIFICANT VIOLATIONS SINCE LAST INSPECTION	_____	X	_____	_____
(b) PERMITTEE IS TAKING ACTION TO RESOLVE VIOLATIONS	X	_____	_____	_____
(c) PERMITTEE HAS COMPLIANCE SCHEDULE	X	_____	_____	_____
(d) COMPLIANCE SCHEDULE CONTAINED IN:	_____	_____	_____	_____
(e) PERMITTEE IS MEETING SCHEDULE OF COMPLIANCE	_____	X*	_____	_____

COMMENTS/STATUS:

Section G. Operation and Maintenance

TREATMENT WORKS:
TREATMENT FACILITY PROPERLY OPERATED AND MAINTAINED

	Yes	No	N/A	N/E
(a) STANDBY POWER AVAILABLE: GENERATOR <u>diesel</u> DUAL FEED	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 STAFF PROVIDED #SHIFTS _____ DAYS/WK	X*	_____	_____	_____
(e) OPERATOR HOLDS UNEXPIRED LISCENSE OF CLASS PROVIDED BY PERMIT- CLASS:	X	_____	_____	_____
(f) ROUTINE AND PREVENTATIVE MAINTENANCE SCHEDULED/PERFORMED ON TIME	X	_____	_____	_____
(g) ANY MAJOR EQUIPMENT BREAKDOWN SINCE LAST INSPECTION	X*	_____	_____	_____
(h) O&M MANUAL PROVIDED AND MAINTAINED	X	_____	_____	_____
(i) ANY PLANT BYPASSES SINCE LAST INSPECTION	_____	X	_____	_____
(j) REG. AGENCY NOTIFIED OF BYPASSES--on MORs _____ 1-800 # _____	_____	_____	X	_____
(k) ANY HYDRAULIC AND/OR ORGANIC OVERLOADS EXPERIENCED SINCE LAST INSPECTION	X*	_____	_____	_____

COMMENTS/STATUS:

Section G. Operation & Maintenance (continued)

	Yes	No	N/A	N/E
COLLECTION SYSTEM:				
(a) PERCENT COMBINED SYSTEM: <u>0</u> %				
(b) COLLECTION SYSTEM OVERFLOWS SINCE LAST INSPECTION: CSO _____ SSO <u>X</u>	<u>X</u>			
(c) REGULATORY AGENCY NOTIFIED OF OVERFLOWS (SSOs)	<u>X</u>			
(d) CSO O&M PLAN PROVIDED AND IMPLEMENTED			<u>X</u>	
(e) CSOs MONITORED AND REPORTED IN ACCORDANCE WITH PERMIT			<u>X</u>	
(f) PORTABLE PUMPS USED TO RELIEVE SYSTEM	<u>X</u>			
(g) LIFT STATION ALARMS PROVIDED AND MAINTAINED	<u>X</u>			
(h) ARE LIFT STATIONS EQUIPPED WITH PERMANENT STANDBY POWER OR EQUIV.	<u>X*</u>			
(i) ANY INFLOW/INFILTRATION PROBLEM, OR ANY MAJOR REPAIRS TO THE COLLECTION SYSTEM SINCE LAST INSPECTION (SEPARATE SEWER SYSTEM)	<u>X*</u>			
(j) ANY COMPLAINTS SINCE LAST INSPECTION OF BASEMENT FLOODING	<u>X</u>			
(k) ARE ANY PORTIONS OF THE SEWER SYSTEM AT OR NEAR CAPACITY		<u>X</u>		
COMMENT/STATUS:				

Section H. Sludge Management

	Yes	No	N/A	N/E
(a) SLUDGE MANAGEMENT PLAN (SMP)	<u>X</u>			
IF YES, DATE SUBMITTED: _____				
APPROVAL # _____				
(b) SLUDGE MANAGEMENT PLAN CURRENT	<u>X</u>			
(c) SLUDGE ADEQUATELY DISPOSED OF: METHOD- _____	<u>X</u>			
(d) IS SLUDGE INCINERATED		<u>X</u>		
IF YES, ASH IS DISPOSED AT: _____				
(e) IS SLUDGE DISPOSAL CONTRACTED	<u>X</u>			
IF YES, CONTRACTOR NAME: _____				
(f) HAS AMOUNT OF SLUDGE CHANGED SIGNIFICANTLY SINCE LAST INSPECTION				
(g) ADEQUATE SLUDGE STORAGE PROVIDED AT PLANT	<u>X</u>			
(h) LAND APPLICATION SITES MONITORED AND INSPECTED PER SMP	<u>X</u>			
(i) RECORDS KEPT IN ACCORDANCE WITH STATE AND FEDERAL LAW	<u>X</u>			
(j) ANY COMPLAINTS RECEIVED IN LAST YEAR REGARDING SLUDGE	<u>X*</u>			
(k) IS SLUDGE ADEQUATELY PROCESSED (digestion, dewatering, pathogen control)	<u>X</u>			
COMMENTS/STATUS:				

Section I. Self Monitoring Program

Part 1. Flow Measurement

	Yes	No	N/A	N/E
(a) PRIMARY FLOW MEASURING DEVICE PROPERLY OPERATED AND MAINTAINED	<u>X</u>			
TYPE OF FLOW MEASURING: _____				
(b) CALIBRATION FREQUENCY ADEQUATE (Date of last calibration): <u>06/13/07</u>	<u>X*</u>			
(c) SECONDARY INST. (totalizer, recorder, etc.) PROPERLY OPERATED & MAINTAINED	<u>X</u>			
(d) FLOW MEASURING EQUIP. ADEQUATE FOR EXPECTED RANGES OF FLOWS	<u>X</u>			
(e) ACTUAL FLOW DISCHARGED IS MEASURED	<u>X</u>			
(f) FLOW MEASURING EQUIPMENT INSPECTION FREQUENCY:				
DAILY <u>X</u> MONTHLY _____				
WEEKLY _____ OTHER _____				

Section I. Self Monitoring Program (continued)

Part 2. Sampling

	Yes	No	N/A	N/E
(a) SAMPLING LOCATION(S) ARE AS SPECIFIED IN THE 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	X	_____	_____	_____
(iii) CONTAINERS AND SAMPLE HOLDING TIMES PRIOR TO ANALYSES 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 RECORDS (e.g., continuous monitoring instrumentation, calibration, and maintenance records)	X	_____	_____	_____
(f) ADEQUATE RECORDS MAINTAINED (e.g., sampling date, time, exact location, etc.)	X	_____	_____	_____

Part 3. Laboratory

	Yes	No	N/A	N/E
(a) EPA APP. ANALYTICAL TESTING PROCEDURES USED (40 CFR 136.3)	X	_____	_____	_____
(b) IF ALTERNATE PROCEDURES ARE USED, PROPER APPROVAL HAS BEEN OBTAINED	_____	_____	X	_____
(c) ANALYSIS PERFORMED MORE FREQUENTLY THAN REQUIRED BY THE PERMIT	_____	X	_____	_____
(d) IF (c) IS YES, ARE RESULTS RECORDED IN PERMITTEE'S SELF-MONITORING REPORT	X	_____	_____	_____
(e) COMMERCIAL LABORATORY USED	X*	_____	_____	_____
(1) PARAMETERS ANALYZED BY COMMERCIAL LAB: <u>Metals, oil-grease, dissolved solids, fecals, TKN, phosphorus, nitrate-nitrite</u>				
(2) LAB NAME: <u>MASI Lab</u>				
(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 USEPA QUALITY ASSURANCE PERFORMANCE SAMPLING PROGRAM DATE:	X*	Satisfactory	_____	_____
	_____	Marginal	_____	_____
	_____	Unsatisfactory	_____	_____

COMMENTS/STATUS:

Section J. Effluent/Receiving Water Observations

OUTFALL NO.	OIL SHEEN	VISIBLE GREASE	VISIBLE TURBIDITY	FOAM	FLOATING SOLIDS	COLOR	OTHER
1	no	no	no	slight	no	clear	

Section K. Multimedia Observations

	Yes	No	N/A	N/E
(a) ARE THERE ANY INDICATIONS OF SLOPPY HOUSEKEEPING OR POOR MAINTENANCE IN WORK AND STORAGE AREAS OR LABORATORIES.	_____	<u>X</u>	_____	_____
(b) DO YOU NOTICE STAINING OR DISCOLORATION OF SOILS, PAVEMENT, OR FLOORS	_____	<u>X</u>	_____	_____
(c) DO YOU NOTICE DISTRESSED (UNHEALTHY, DISCOLORED, DEAD) VEGETATION	_____	_____	_____	_____
(d) DO YOU SEE UNIDENTIFIED DARK SMOKE OR DUSTCLOUDS COMING FROM SOURCES OTHER THAN SMOKESTACKS	_____	_____	_____	_____
(e) DO YOU NOTICE ANY UNUSUAL COLORS OR STRONG CHEMICAL SMELLS	_____	<u>X</u>	_____	_____
(f) DO YOU SEE ANY OPEN OR UNMARKED DRUMS, UNSECURED LIQUIDS, OR DAMAGED CONTAINMENT FACILITIES?	_____	<u>X</u>	_____	_____

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:

ATTACHMENT

General

The Tussing Road sewage treatment plant consists of manual bar screen, automatic rotating screens, influent pumping, vertical loop reactors, final settling clarifiers, ultraviolet disinfection, and post aeration. Sludge is treated by utilizing sludge holding tanks, sludge pumping station, thickened sludge storage, belt filter press, alkaline stabilization facility, and covered sludge storage with an attempt to control sludge odors by a deodorant or masking agent which is either misted or used in block form near the closest neighboring building. Sludge is then land applied or if needed it can be landfilled.

Operation and Maintenance

The two influent pumps went down at different times in a span of about 2 months. These pumps are now repaired and a third influent pump was bought as a spare. The "silent pump" can also serve as backup.

At least two operators and the lead operator are at the plant full time Monday through Friday. On weekends and holidays the plant is checked by staff and of course the SCADA system is operational 24 hours per day.

One of two clarifiers is used except during heavy flows both clarifiers are run. Do you have a written policy on when second clarifier is put into operation? How about any other units? Are they all run all the time or only certain ones for low flows and all for high flows? **Please comment in writing.**

Collection System

Generators have been installed at the Valley, Brookview, Easton, and Mingo sewage pump stations. There is a portable generator also available.

Sewage pump station overflows or manhole overflows were reported from:

- Easton pump station on September 1 - 5, 2006
- Easton pump station on November 9, 2006
- Manhole overflow at Turnberry Plaza on October 17, 2006
- Valley pump station on March 1 and 2, 2007
- Valley pump station on March 15, 2007

Please provide a response in writing on what is being done to reduce/eliminate these pump station overflows.

Please note that in the NPDES permit, Part 2, item O (Sanitary Sewer Overflow Reporting Requirements) there is a requirement to submit an annual report by March 31 of each year. There is a provision that systems serving fewer than 10,000 people are not required to submit an annual report **if all monthly operating reports for the proceeding calendar year show no discharge from overflows.**

Since there have been overflows at pump stations and a manhole for the Tussing Road collection system, **an annual report is required even though Tussing Road serves fewer than 10,000 people. Please respond in writing that you will prepare an annual report for 2006 and be aware that one will be required for 2007.**

An inflow/infiltration program is implemented and on-going. Next area to be inspected will probably be the Woodsfield area. They believe that I/I work has dropped flows in the New England area by 20-30%.

Laboratory and Self-Monitoring

The DMR QA26 had acceptable results for all tests done by the Fairfield Utilities lab except for the ammonia test. Lab personnel stated that the result for nitrate was incorrectly used as the ammonia result. For tests run by the commercial lab (MASI), they had unacceptable results for cadmium, selenium, zinc, and dissolved solids.

Ginosko Lab out of Harpstaer, Ohio performs the low-level mercury tests.
The lab scale was calibrated 10-28-05.
Incubator records are now logged for CBOD5 test

Spot check of monthly self-monitoring report data with bench sheets and commercial lab sheets indicated that data was transposed correctly.

Instead of running duplicate samples 10% of the time, the facility sent a duplicate sample to MASI Lab. When this is done, the results should be compared side by side in some type of logbook. Another idea would be to run duplicate samples at the Tussing Lab 5 % of the time and do the MASI split 5%. **Please comment in writing on how you will handle this.**

Analytical Products Group is used for the quarterly check samples. This is a good practice.

Effluent/Receiving Waters and Compliance

Review of monthly self monitoring reports in SWIMS for the period August 2006 through June 2007 revealed that the only permit exceedences were during the week of March 15-21, 2007. There were high flows during that week with 3.94 MGD on 3/15, 5.4 MGD on 3/16, and an average weekly flow of 3.4 MGD. See the attached page for violation details.

Compliance Schedule

The NPDES permit has a Part 1. C - Schedule of Compliance that has schedules to meet total dissolved solids limits and total phosphorus limits.

Under item #1 Total Dissolved Solids Schedule the permittee must:

a. Within 12 months from the effective date of the permit (i.e. August 1, 2007) , the permittee shall submit a status report on its actions to achieve compliance with final effluent limits for dissolved solids....

Note: A letter to Ohio EPA dated August 1, 2007 from Stephen Samuels, Counsel for Fairfield County Board of Commissioners stated that Fairfield County was not submitting the general plan as the reasonableness and lawfulness of those effluent limits (for total dissolved solids) are the subject of a legal challenge by the County before ERAC.

Under item #3 Total Phosphorus Schedule the permittee must:

a. Within six months from the effective date of this permit (i.e. February 1, 2007) the permittee shall submit a status report on its actions to achieve compliance with final effluent limits for phosphorus.

Note: A letter was received dated Feb.16, 2007 from Don Sherman, Interim Director of Utilities which stated that a six month status report was due, Fairfield County Utilities was challenging the phosphorus limit (had filed an appeal) and said that they were investigating ways, means, and the cost of meeting phosphorus limits. However, they did not intend to implement any such measures unless and until their legal challenges were exhausted.

b. Within 12 months from the effective date of the permit (i.e. August 1, 2007) the permittee shall submit a general plan to achieve final (phosphorus) limits.

Note: A letter to Ohio EPA dated August 1, 2007 from Stephen Samuels, Counsel for Fairfield County Board of Commissioners stated that Fairfield County was not submitting the general plan as the reasonableness and lawfulness of those effluent limits (for total phosphorus) are the subject of a legal challenge by the County before ERAC.

Since the appeal does not stay the permit, Fairfield County is not in compliance with the compliance schedule in permit 4PU00004*HD. Please comment in writing.

Sludge

The Tussing Road plant has begun using alkaline stabilization in its sludge treatment method. The facility met the 503 Federal Sludge Requirements for class B sludge in the following manner:

For Pathogen Alternative they used PSRP process which was lime stabilization.

For Vector Attraction Reduction they used a pH of 12 or greater initially and then pH greater than or equal to 11.5 after 24 hours.

All sludge tested for metals were well below the ceiling concentration limits.

For the year 2006 the facility produced 582.4 dry tons of sludge which was all land applied. The sludge produced is now greater than previous years because they are now using lime to stabilize the sludge and this increases the tonnage.

Synagro has contract to land apply the sludge.

In late summer and early autumn 2006 odor complaints were received by OEPA and Tussing Road STP. Plant personnel attributed the odors to the lime stabilization process and possibly headworks. For a while, calcium nitrate was added in the collection system to reduce hydrogen sulfide odors. The facility also tried using liquid deodorant/masking on the east side of sludge processing where complaints were coming from a business right next to the processing/storage area. Plant personnel feel that odors are greatest when the processed stored sludge is moved around to load in trucks for land application.

Since all the smaller Fairfield County STPs haul their sludge to Tussing Plant for treatment does this have any effect on odors? When unloaded? How often?

Please provide in writing what additional measures might be attempted or contemplated to reduce sludge related odors at the Tussing Plant.

Flow Measurement

Calibration of flow meter by an outside firm occurs annually as recommended. However, the facility should perform either monthly or quarterly "stick measurements" to ensure the flow meter is measuring properly between these yearly checks. To perform the "stick calibrations" record the water level either on the gauge level or use a yardstick and convert this water level to a flow volume based on the table for your particular weir. Compare this to the instantaneous flow of the meter. If the two measurements are within + or - 10% this is considered acceptable. If you cannot get within + or - 10% after several attempts, you should contact either the manufacturer or the outside firm that calibrates your flow meter. Record date and time of stick measurements, the calculated flow versus meter flow, and person/persons doing the stick calibration.

Please comment in writing that you will begin doing this "stick Calibration" check.

Tuesday, 12/31/07
Get New Data

AVG of THROUGH JUNE 07 VIOLATIONS

Permit No	Reporting Period	Station	Reporting Code	Parameter	Limit Type	Limit	Reported Value	Violation Date
4PU00004*HD	March 2007	001	00530	Total Suspended Solids	7D Conc	18	23.75	3/15/2007
4PU00004*HD	March 2007	001	00530	Total Suspended Solids	7D Qty	204	340.907	3/15/2007
4PU00004*HD	March 2007	001	80082	CBOD 5 day	1D Qty	171	262.168	3/15/2007

Tussing Rd Water Reclamation Facility 4PU00004*HD :
Period : 08/01/2006 to 05/31/2007 Parameter : Flow Rate (MGD)

