

**Environmental
Protection Agency**

John Kasich, Governor
Deborah D. S. S. , Lt. Governor
L. J. ... , Director

December 9, 2010

RE: TRUMBULL COUNTY
CITY OF GIRARD WWTP
COMPLIANCE SAMPLING INSPECTION
OHIO EPA PERMIT NO. 3PD00010
NPDES PERMIT NO. OH0025364

Mayor James Melfi and Council
City of Girard
100 West Main Street
Girard, OH 44420

Dear Mayor Melfi and Council:

Please find enclosed a copy of the laboratory data compiled by Ohio EPA for the samples collected on October 18-19, 2010 at the Girard Wastewater Treatment Plant. The City was represented by Acting Superintendent Howard Zickefoose. During the course of the visit, 24-hour composite and grab samples were collected of the plant effluent at Outfall 001. In addition, upstream and acute mixing zone samples were collected in Little Squaw Creek. The samples were split with the facility and analyzed by Ohio EPA for the routine permit parameters, organic constituents, and biological toxicity.

NPDES Permit Status/Facility Description:

The current NPDES permit, issued with an effective date of July 1, 2009, expires on January 31, 2012. The wet-stream processes of the 5.0 MGD treatment plant consist of preliminary treatment, primary clarification, trickling filter secondary treatment process, final clarification, chlorine disinfection, and dechlorination. Wet-weather storage is provided in an off-line retention basin. The plant discharges to the Little Squaw Creek via Outfall 001.

The facility has an internal secondary treatment process bypass at Station 602 which is tributary to Outfall 001. There is one identified Combined Sewer Overflow (CSO) in the collection system.

Waste sludge from the facility is anaerobically digested, dewatered in a new belt filter press, and hauled to a licensed solid waste landfill for disposal.

Inspection Findings/Compliance Review:

At the time of the inspection, the following observations and comments were noted:

1. The general operation and maintenance of the treatment processes and equipment appeared to be satisfactory. However, it was noted that the facility was still dealing with an excessive solids inventory associated with the replacement of its old belt press.

2. A visual observation of the plant effluent revealed evidence of solids carryover in the discharge. However, no adverse impact was evident within the mixing zone and downstream segments of Little Squaw Creek.
3. The analytical data revealed that the plant discharge was in compliance with the respective NPDES permit effluent concentration limitations. Additionally, the bioassay data indicates that the effluent was not acutely toxic to the test organisms, Ceriodaphnia dubia and Pimephales promelas. Screening bioassays are utilized by Ohio EPA to determine if an effluent is acutely toxic to the test organisms and to indicate if more extensive evaluations should be conducted to determine the persistence of toxicity. The current evaluation did not address the possibility of chronic toxicity.
4. The review of the plant laboratory noted that the following permit parameters are currently being analyzed in-house: DO, pH, Temperature, Chlorine, cBOD, Suspended Solids, Fecal Coliform, and Ammonia. Bioassay analyses are performed by Great Lakes Environmental. The analyses of the remaining permit parameters are performed by Cardinal Laboratories, LLC. A comparison of the split-sampling data received from the City did not indicate any significant discrepancies in the reported results.

Discharge Monitoring Reports (DMR):

Discharge monitoring reports (DMR) received by Ohio EPA for the period, February 2009 – October 2010, were reviewed. A summary of the discharge data is listed in Attachment A. The review noted violations of the terms and conditions of the NPDES permit. The specific instances of non-compliance are as follows:

Reporting Period	Station	Parameter	Limit Type	Limit	Reported Value	Violation Date
March 2009	001	Acute Toxicity, Ceriod	1D Conc	1.0	5.	3/30/2009
March 2009	001	Bis(2-ethylhexyl) Phth	30D Conc	1.8	12.	3/1/2009
March 2009	001	Bis(2-ethylhexyl) Phth	30D Qty	0.034	.15665	3/1/2009
June 2009	001	Bis(2-ethylhexyl) Phth	30D Conc	1.8	30.5	6/1/2009
June 2009	001	Bis(2-ethylhexyl) Phth	30D Qty	0.034	.35291	6/1/2009
May 2009	001	Chlorine, Total Residu	1D Conc	0.019	.09	5/1/2009
May 2009	001	Chlorine, Total Residu	1D Conc	0.019	.12	5/4/2009
May 2009	001	Chlorine, Total Residu	1D Conc	0.019	.15	5/6/2009
May 2009	001	Chlorine, Total Residu	1D Conc	0.019	.14	5/7/2009
May 2009	001	Chlorine, Total Residu	1D Conc	0.019	.11	5/8/2009
May 2009	001	Chlorine, Total Residu	1D Conc	0.019	.09	5/11/2009
May 2009	001	Chlorine, Total Residu	1D Conc	0.019	.09	5/12/2009
August 2009	001	Chlorine, Total Residu	1D Conc	0.019	.16	8/12/2009
February 2010	001	Copper, Total Recovers	30D Conc	20	39.4333	2/1/2010
February 2010	001	Copper, Total Recovers	30D Qty	0.38	.4783	2/1/2010

Reporting Period	Station	Parameter	Limit Type	Limit	Reported Value	Violation Date
February 2010	001	Copper, Total Recovera	1D Conc	33	69.6	2/4/2010
February 2010	001	Copper, Total Recovera	1D Qty	0.63	.88356	2/4/2010
February 2010	001	Copper, Total Recovera	1D Conc	33	48.7	2/17/2010
October 2010	001	Copper, Total Recovera	30D Conc	20	22.	10/1/2010
August 2010	001	Dissolved Oxygen	1D Conc	5.0	4.9	8/19/2010
August 2009	001	Silver, Total Recovera	30D Conc	1.3	4.	8/1/2009
August 2009	001	Silver, Total Recovera	30D Qty	0.025	.06544	8/1/2009
February 2009	001	Total Suspended Solids	30D Conc	30	39.8333	2/1/2009
February 2009	001	Total Suspended Solids	30D Qty	568	836.795	2/1/2009
February 2009	001	Total Suspended Solids	7D Conc	45	66.6666	2/8/2009
February 2009	001	Total Suspended Solids	7D Qty	852	1934.09	2/8/2009
April 2009	001	Total Suspended Solids	30D Conc	30	45.5	4/1/2009
April 2009	001	Total Suspended Solids	7D Conc	45	115.25	4/8/2009
August 2009	001	Total Suspended Solids	30D Conc	30	38.4166	8/1/2009
August 2009	001	Total Suspended Solids	30D Qty	568	650.602	8/1/2009
August 2009	001	Total Suspended Solids	7D Conc	45	79.	8/8/2009
August 2009	001	Total Suspended Solids	7D Qty	852	1557.63	8/8/2009
December 2009	001	Total Suspended Solids	30D Conc	30	30.6666	12/1/2009
December 2009	001	Total Suspended Solids	7D Conc	45	52.6666	12/15/2009
May 2010	001	Total Suspended Solids	30D Conc	30	40.1666	5/1/2010
May 2010	001	Total Suspended Solids	7D Conc	45	74.6666	5/15/2010
May 2010	001	Total Suspended Solids	7D Qty	852	1174.31	5/15/2010

Reporting Period	Station	Parameter	Reported Value	Violation Date
September 2009	001	Fecal Coliform	AK	9/8/2009
October 2010	001	Fecal Coliform	AK	10/14/2010
October 2010	001	Fecal Coliform	AK	10/27/2010

In addition to the above, the evaluation noted the following headworks bypasses at Station 602:

Station	Reporting Code	Parameter	Units	Date	Reported Value
602	50050	Flow Rate	MGD	2/10/2009	0.883
602	50050	Flow Rate	MGD	4/15/2009	0.043
602	50050	Flow Rate	MGD	7/2/2009	0.043
602	50050	Flow Rate	MGD	7/31/2009	0.454
602	50050	Flow Rate	MGD	8/11/2009	(*)
602	50050	Flow Rate	MGD	3/22/2010	0.714
602	50050	Flow Rate	MGD	5/18/2010	1.545
602	50050	Flow Rate	MGD	6/9/2010	0.256

Mayor James Melfi and Council
City of Girard
December 9, 2010
Page 4

Station	Reporting Code	Parameter	Units	Date	Reported Value
602	50050	Flow Rate	MGD	6/22/2010	0.01
602	50050	Flow Rate	MGD	8/12/2010	0.68

(*) – incorrect flow data to be updated via eDMR

Based on the above, it would appear that the facility is still impacted by excessive inflow and infiltration (I/I) in the collection system. We understand that the City is continuing to evaluate sources of the extraneous I/I. The efficiency of the wastewater treatment plant is dependent of the effective maintenance of the collection system. Please be advised that the diverting or bypassing of wastewater from any portion of the treatment facility is prohibited and may be subject to an enforcement action pursuant to the Ohio Revised Code Chapter 6111. All bypass events must be reported as an unauthorized discharge in accordance with Part III, items 11 and 12, of your NPDES permit.

Summary:

Please be advised that violations of the terms and conditions of the NPDES permit are subject to appropriate enforcement actions pursuant to Chapter 6111 of the Ohio Revised Code. Such actions can result in the imposition of fines of up to \$10,000 per day of violation. It is requested that the City submit a written response to this office documenting the actions taken or proposed to address the above violations and/or deficiencies. Your response shall include dates for initiation and completion of the actions.

Should you have any questions or comments regarding this letter, please contact me at (330) 963-1196.

Respectfully,



Ermelindo Gomes
Environmental Engineer
Division of Surface Water

EG/mt

Enclosure: Bioassay Report

cc: Howard Zickefoose, Girard WWTP

File: Public/Girard WWTP/PC

ATTACHMENT A: GIRARD WWTP DISCHARGE SUMMARY (2/2009 – 10/2010)

Parameter	Season	Units	# Obs.	Percentiles		Data Range
				50 th	95 th	
Outfall 001						
Water Temperature	Annual	C	444	15.6	20.7	7.1-22.2
Dissolved Oxygen	Summer	mg/l	256	6.7	8.4	4.9-13.8
Dissolved Oxygen	Winter	mg/l	188	8.5	12	5-13.5
Total Suspended Solids	Annual	mg/l	250	21	52.1	2-201
Oil and Grease, Hexane Extr Method	Annual	mg/l	42	4.15	8.58	0-9.63
Nitrogen, Ammonia (NH3)	Summer	mg/l	145	2.35	11.2	0-16.3
Nitrogen, Ammonia (NH3)	Winter	mg/l	106	1.93	8.63	0.253-14.9
Nitrogen Kjeldahl, Total	Annual	mg/l	33	3.74	14.9	0.822-18.5
Nitrite Plus Nitrate, Total	Annual	mg/l	22	9.8	16.9	2.5-23.6
Phosphorus, Total (P)	Annual	mg/l	84	2.47	3.67	0.25-4.6
Cyanide, Free	Annual	mg/l	8	0	0	0-0
Nickel, Total Recoverable	Annual	ug/l	8	13.3	22.1	0-25.2
Silver, Total Recoverable	Annual	ug/l	21	0	0	0-4
Zinc, Total Recoverable	Annual	ug/l	22	39.2	120	0-146
Cadmium, Total Recoverable	Annual	ug/l	8	0	0	0-0
Lead, Total Recoverable	Annual	ug/l	8	0	0	0-0
Chromium, Total Recoverable	Annual	ug/l	8	0	0	0-0
Copper, Total Recoverable	Annual	ug/l	24	5	44.7	0-69.6
Chromium, Dissolved Hexavalent	Annual	ug/l	7	0	0	0-0
Fecal Coliform	Annual	#/100 ml	153	69.3	282	0-53000
Bis(2-ethylhexyl) Phthalate	Annual	ug/l	7	0	25	0-30.5
Flow Rate	Summer	MGD	368	2.89	4.45	1.05-7.24
Flow Rate	Winter	MGD	270	3.56	6.73	0.024-11.1
Flow Rate	Annual	MGD	638	3.06	5.5	0.024-11.1
Chlorine, Total Residual	Annual	mg/l	264	0.0005	0.00266	0.00005-0.16
Mercury, Total (Low Level)	Annual	ng/l	23	13.3	28.4	2.11-35.8
Acute Toxicity, Ceriodaphnia dubia	Annual	TUa	7	0	3.53	0-5
Chronic Toxicity, Ceriodaphnia dubia	Annual	TUc	2	0	0	0-0
Acute Toxicity, Pimephales promelas	Annual	TUa	7	0	0.1	0-0.1
Chronic Toxicity, Pimephales promelas	Annual	TUc	2	0	0	0-0
pH, Maximum	Annual	S.U.	472	7.63	8	7.24-8.36
pH, Minimum	Annual	S.U.	472	7.49	7.81	6.93-8.07
CBOD 5 day	Summer	mg/l	145	13.2	29.9	5.5-77
CBOD 5 day	Winter	mg/l	105	14.5	28.1	8.7-40
CSO 003						
Total Suspended Solids	Annual	mg/l	1	136	136	136-136
Overflow Occurrence	Annual	No./Month	1	1	1	1-1
Overflow Volume	Annual	Million Gallons	1	0.883	0.883	0.883-0.883
CBOD 5 day	Summer	mg/l	0	0	0	0-0
CBOD 5 day	Winter	mg/l	1	39.3	39.3	39.3-39.3

ATTACHMENT A: GIRARD WWTP DISCHARGE SUMMARY (2/2009 -- 10/2010)

Parameter	Season	Units	# Obs.	Percentiles		Data Range
				50 th	95 th	
Station 602						
Bypass Occurrence	Annual	No./Day	10	1	1	1-1
Bypass Total Hours Per Day	Annual	Hrs/Day	10	8.04	11.4	0.5-12
Total Suspended Solids	Annual	mg/l	11	276	687	24-688
Flow Rate	Summer	MGD	7	0.454	11.7	0.01-16
Flow Rate	Winter	MGD	3	0.714	0.866	0.043-0.883
Flow Rate	Annual	MGD	10	0.567	9.5	0.01-16
CBOD 5 day	Summer	mg/l	7	104	181	67-200
CBOD 5 day	Winter	mg/l	4	85.6	146	60.9-154