



**Environmental  
Protection Agency**

John R. Kasich, Governor  
Mary Taylor, Lt. Governor  
Scott J. Nally, Director

Re: Erie County  
City of Vermilion  
NPDES Permit

May 2, 2012

Mr. Bob Kurtz  
Service Director  
City of Vermilion  
5511 Liberty Avenue  
Vermilion, Ohio 44089

Dear Mr. Kurtz:

On April 11, 2012, a compliance inspection was conducted of the Vermilion wastewater treatment plant (WWTP). Last June, the city contracted with Uni-Tech Environmental Services to manage operations at the plant. Ms. Christina Faith and her staff were present and provided information regarding facility operations. The inspection consisted of an interview utilizing a compliance checklist covering major areas of facility operations, and a walkthrough of the entire plant. At the time of my visit, a clear final effluent was observed being discharged into the Vermilion River. Our comments and recommendations are as follows:

- 1) On March 5, we received the Schedule of Construction required by Director's Final Findings and Orders (F&O's) to eliminate remaining pump station overflows. It indicates that overflows at Elberta Beach would be eliminated by March 31, 2014, and Romp's by March 31, 2015. Quarterly reports are being received as required. Proposed major improvements at the Elberta Beach pump station are currently being designed and include: gravity in- pump out equalization basin, telemetry upgrades and a replacement generator. We also received the required 2012 Sewer Rate Study, which will provide financial guidance for upcoming capital improvement projects.

Your annual Sanitary Sewer Overflow (SSO) report indicated 24 events at Romp's in 2011, and seven thus far in 2012, and 32 events at Elberta Beach in 2011, and seven thus far in 2012. V.O.L continues to experience occasional manhole surcharges in the collection system, which should also be documented. I informed Ms. Faith that she may now email me directly to satisfy the 24-hour notification requirement in lieu of calling the 800 spill number due to the exorbitant volume of calls being received. The 5-Day Follow Up Reports are being received and should continue to be sent.

- 2) Supervision over the sanitary sewer collection system and pump stations has yet to be transferred from the Water Division. This remains an ongoing issue, and you assured me that it will be resolved as soon as a contract is provided and agreed upon with Uni-Tech. Please notify me when the management duties have been transferred.
- 3) The Andritz sludge centrifuge has been in operation since January and is still undergoing fine tuning to increase efficiency. The unit is producing up to 30 percent solids, approximately twice the percentage as the temporary filter press. Sludge solids are currently landfilled, with a goal being the establishment of a land application program. This fulfilled a requirement within Director's F&O's to increase sludge storage at the plant to 120 days.

With the sludge handling improvements completed, Ms. Faith would like to begin a 90 day trial to begin accepting limited quantities of septage. Initially, 10,000 to 15,000 gallons per day would be introduced at the headworks. Plant performance would be closely monitored. We have no objection to this trial, and we agreed that a written summary evaluation would be submitted to me with a determination to continue, expand or end the program. If successful, it is hoped that proceeds from this program can eventually be used to rehabilitate the sludge gravity thickener tank which has been out of service for years.

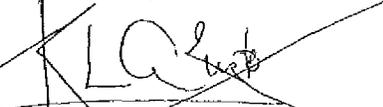
- 4) One of six final clarifiers is out of service due to a broken valve shaft. It is expected to be repaired within three months. Work on returning the primary settling tank is expected to begin soon and be completed by July. This was also required in Directors F&O's. Ms. Faith indicated that they would like to switch from gas to liquid Sodium Bisulfite for effluent dechlorination. Since this is considered a change in treatment, a Permit to Install (PTI) will be required.
- 5) We received the 2011 annual report summarizing the mercury pollutant minimization program (PMP). Surveys have been sent to dental offices, two clinical labs and the Vermilion High School. Also, a concerted effort on cleaning sewers tributary to the Park Drive pump station will be made, as that area was identified as having a higher deposition of solids. Please continue to implement the mercury PMP as approved.
- 6) We discovered that prior to leaving, the last superintendent did not submit analyses of last year's U.S. EPA laboratory quality assurance performance evaluation program No. 31. Participation in the program for facilities rated as a "Major" is mandatory, and this oversight should not reoccur.

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- 7) Discharge monitoring reports are being received in a timely manner and indicated several ammonia violations prior to the new operations team. These were attributed to air leaks in the main header line to the aeration tanks. Until the line is repaired, post aeration was increased prior to chlorination, resulting in lower ammonia levels.

I am pleased to report that the staff of Uni-Tech has brought a more professional approach to plant operations and look forward to continued improvement in the future. My completed inspection is enclosed. If you have any questions, or any of the above is in error, please call me at (419) 373-3020, or email at [rick.zuzik@epa.state.oh.us](mailto:rick.zuzik@epa.state.oh.us) .

Yours truly,



Richard A. Zuzik, MSE  
Division of Surface Water

/jlm

Enclosure

pc: Christina Faith, Uni-Tech Environmental Services  
Lynn Miggins, P.E., KS Associates

ec: Inspection Tracking



State of Ohio Environmental Protection Agency  
Northwest District Office

NPDES Compliance Inspection Report

Section A: National Data System Coding					
Permit #	NPDES#	Month/Day/Year	Inspection Type	Inspector	Facility Type
2PD00032	OH0023614	4/11/12	C	S	1

Section B: Facility Data		
Name and Location of Facility Inspected	Entry Time	Permit Effective Date
City of Vermilion WWTP 799 West River Road Vermilion, OH 44089	10:30 am	8/1/2011
	Exit Time	Permit Expiration Date
	12:30 pm	7/31/2016
Name(s) and Title(s) of On-Site Representatives	Phone Number(s)	
Christina Faith, Uni-Tech Mark Francis, Uni-Tech , Barry Boehnlein, Uni-Tech	(419) 357-2688	
Name, Address and Title of Responsible Official	Phone Number	
Robert Kurtz, Director of Public Service	(440) 204-2424	

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

Section D: Summary of Findings (Attach additional sheets if necessary)			
Inspector		Reviewer	
 Richard A. Zuzik, MSE Division of Surface Water Northwest District Office		 Thomas Poffenbarger, P.E. Water Quality Engineer II / Unit Supervisor Division of Surface Water Northwest District Office	
Date		Date	
4/30/12		4/30/12	

Permit # : 2PD00032  
NPDES # : OH0023614

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:

Permit renewed effective August 1, 2011  
e) Sludge centrifuge operational 1/12

**Section F: Compliance Schedules/Violations**

- |   |   |
|---|---|
| (a) Any significant violations since the last inspection..... | Y   |
| (b) Permittee is taking actions to resolve violations.....    | Y   |
| (c) Permittee has a compliance schedule.....                  | N   |
| (d) Compliance schedule contained in                          | <input type="text" value="Director's Findings and Orders"/> |
| (e) Permittee is meeting compliance schedule.....             | Y   |

Comments/Status:

Director's Findings and Orders signed May 25, 2011 to eliminate pump station SSO's

**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.. Y
- (c) All treatment units in service other than backup units..... Y
- (d) Wastewater Treatment Works classification (OAC 3745-7)..... III
- (e) Operator of Record holds unexpired license of class required by permit..... Y  
 Class: III
- (f) Copy of certificate of Operator of Record displayed on-site..... Y
- (g) Minimum operator staffing requirements fulfilled (OAC 3745-7)... Y
- (h) Routine and preventative maintenance scheduled/performed... Y
- (i) Any major equipment breakdown since last inspection..... Y
- (j) Operation and maintenance manual provided and maintained..... Y
- (k) Any plant bypasses since last inspection..... N/A
- (l) Regulatory agency notified of bypasses..... N/A  
 On MORs  and/or Spill Hotline (1-800-282-9378)
- (m) Any hydraulic and/or organic overloads since last inspection..... N

**Record Keeping:**

- (a) Log book provided..... Y
- (b) Format of log book (i.e. computer log, hard bound book)  

Individual operator hardbound logbooks and computer logs kept
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- (c) Log book(s) kept onsite (in an area protected from weather)..... Y
- (d) Log book contains the following:
  - I. Identification of treatment works..... Y
  - II. Date/times of arrival/departure for Operator of Record and any other operator required by OAC 3745-7..... Y
  - III. Daily record of operation and maintenance activities (including preventative maintenance, repairs and request for repairs)..... Y
  - IV. Laboratory results (unless documented on bench sheets)... Y
  - V. Identification of person making log entries..... Y
- (d) Has the operator of record submitted written notification to the permittee, Ohio EPA and (if applicable) any local environmental agencies when a collection system overflow, treatment plant bypass or effluent limit violation has occurred..... Y

**Section G: Operation & Maintenance (con't)**

**Collection System:**

- (a) Percent combined system: 0%
- (b) Any collection system overflows since last inspection..... Y  
(CSO  and/or SSO )
- (c) Regulatory agency notified of overflows (SSOs)..... Y
- (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..... Y
- (h) Are lift stations equipped with permanent standby power  
or equivalent..... Y
- (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 Y
- (k) Are any portions of the sewer system at or near capacity..... Y

Comments/Status:

Romps- 24 SSO events in 2011  
Albert Beach - 32 SSO events in 2011

One final settling tank out of service due to broken valve shaft. Expected to be returned within 3 months

Primary settling tank repairs to begin soon and be back in service by July 2012

**Section H: Sludge Management**

- (a) Sludge management plan (SMP)  
Submitted date:                      Approval #:                      Not submitted     N/A
- (b) Sludge management plan current..... Y  
(c) Sludge adequately disposed..... Y  
(Method:Landfill)  
(d) If sludge is incinerated, where is ash disposed of  
(e) Is sludge disposal contracted..... Y  
(Name:MidWest)  
(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..... N/A  
(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)..... N/A

**Comments/Status:**

New centrifuge in operation since January- producing approx. 30% solids which are landfilled

**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:                      )
- (b) Calibration frequency adequate ..... Y  
(Date of last calibration: 5/11/2011)  
(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:**

**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).. Y
- (b) If alternate analytical procedures are used, proper approval has been obtained..... Y
- (c) Analyses being performed more frequently than required by permit. Y
- (d) If (c) is yes, are results in permittee's self-monitoring report..... Y
- (e) Commercial laboratory used..... Y  
Parameters analyzed by commercial lab: Metals, Mercury

Lab name: Jones & Henry, Alloway

*Quality Control/Quality Assurance*

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

Date:

**Comments/Status:**

Previous Superintendent did not submit 2011 DMRQA #31 analysis

**Section J: Effluent/Receiving Water Observations**

Outfall Number	Oil sheen	Grease	Turbidity	Visible Foam	Visible Floating Solids	Color	Other
001	None	None	None	None	None	None	

**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:**

F. GUIDE - VISUAL OBSERVATION - UNIT PROCESS

Form Approved  
OMB No. 158-R0035

RATING CODES: S = Satisfactory; U = Unsatisfactory; M = Marginal; IN = In Operation; OUT = Out of Operation

CONDITION OR APPEARANCE		RATING	COMMENTS
General	Grounds	M	Old equipment and scrap still on grounds
	Buildings	S	
	Potable Water Supply Protection	S	
	Safety Features	S	
	Bypasses	-	
	Stormwater Overflows	-	
	Alternate Power Source	S	Generator
Preliminary	Maintenance of Collection Systems	U	F&O's for eliminating pump station SSO's, VOL MH's still surcharging
	Pump Station	In	2 screw pumps, alternated monthly
	Ventilation	S	
	Bar Screen	In	2 mechanical
	Disposal of Screenings / Grit	S	Landfill
	Grit Chamber	In	Aerated
	Septage	-	3 month trial to accept septage
Primary	Settling Tanks	In	Work beginning soon to bring third tank online by July
	Scum Removal	S	
	Sludge Removal	S	
	Effluent	S	Grey
Sludge Disposal	Digesters	In	One primary, one secondary
	Temperature and pH	S	
	Gas Production	-	Wasted
	Heating Equipment	S	
	Sludge Pumps	In	
	Sludge Centrifuge	In	New Andritz Centrifuge used since January - 30% solids
	Disposal of Sludge	S	Landfill
Other	Gravity Thickener	Out	
	Flow Meter and Recorder	In	
	Records	S	
	Lab Controls	S	
Secondary-Tertiary List items as required	Chemical Treatment	In	Ferrous chloride for phosphorus removal
	Aeration Tanks	In	4 tanks
	Final Clarifiers	In	One of six out with broken valve stem
Disinfection	Effluent	S	Very Clear
	Disinfection System	Out	
	Effective Dosage	-	
	Contact Time	-	
	Contact Tank	In	
	Dechlorination	-	Want to switch from gas to liquid Sodium Bisulfite