Ohio EPA
40 years and moving forward

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

September 24, 2013

Mayor and Council
Village of New Madison
P. O. Box 1
New Madison, OH 45346

RE: *Notice of Violation* (1PA00017*ED/OH0040584)
Village of New Madison Sewage Treatment Plant
Compliance Evaluation Inspection

Dear Mayor and Council:

On August 29, 2013, Bob Ostendorf and I performed a Compliance Inspection Evaluation of the Village's sewage treatment plant (STP) located on 2115 Rush Road. Mr. Steve Crawford, current Operator of Record, was present for the entire inspection and Mr. Randy Scharr was present for the latter part of the inspection in the afternoon. Overall, the facility received a rating of Unsatisfactory. Several issues were identified during this inspection resulting in the given overall rating, as well as, this Notice of Violation. These violations are identified below. A response to the listed violations is required as indicated in the listing for each violation.

It is known that the Village terminated the employment of the former operator on August 16, 2013. This person was responsible for the Operator of Record duties, prior to this date. The below listed violations existed prior to the current Operator of Record; and, progress has been made in returning the facility to full functionality. However, please note that the Mayor and Council of New Madison maintain ultimate responsibility for the National Pollutant Discharge Elimination System (NPDES) permit, as the permit holder or permittee. The permittee is bound by the conditions of the active NPDES permit, including associated laws of the State.

The following list contains the violations list for the facility. Please read this list carefully. The list is broken into sections in which action has been taken to address a particular violation and those that require further action. Violations that are defined as 'Addressed' document the corrective action that has been taken to eliminate this violation. Violations requiring a response or further action, a time for completion and/or response are given.

Addressed Violations:

1) Failure to maintain and operate the STP unit operations. Specifically identified were both of the facility's clarifiers and the ultraviolet (UV) disinfection equipment.
   - Both clarifiers were repaired and returned to service via shear pin replacement and reset of a breaker.
   - Failed UV bulbs were replaced with available spares. An effluent water sample was tested for E. coli after bulb replacement. The result of this analytical test was well below the NPDES effluent permit limit.
2) Failure to notify the Ohio EPA of issues regarding equipment issues leading to inadequate treatment and the passage of solids from the STP to the receiving stream.
   - The Ohio EPA was notified by the current Operator of Record August 19, 2013. However, it was indicated in this notification that the reported plant operational challenges existed prior to this date.
3) Failure to present a log book meeting the requirements of Ohio Revised Code 3745-07-09.
   - A new log book meeting the requirements of ORC 3745-07-09 has been started. The first entry in this log is August 19, 2013.
4) Frequency Violation for Oil and Grease for June 2013.
   - Ensure that the third quarterly sample is taken, analyzed and reported.
5) Frequency Violations for the reporting of the effluent flow rate for the month of March, 2013.

Violation Requiring a Response:

6) Failure to maintain adequate oversight of the STP by the NPDES permit holder. The NPDES permit holder for the village of New Madison is the Mayor and Council of the village of New Madison.
   - Provide a brief overview on steps taken to enhance oversight of the operations of STP activities. Some example suggested actions that could be part of this response are STP and/or Outfall 001 visits by the Mayor, Council and/or Board of Public Affairs; a review of the log book mentioned in Item 3 above; and/or requesting additional facility inspections by the Ohio EPA.
   - ***Response Required: 60 days from the date of this letter.***
7) Solids deposition in the receiving stream, the East Fork of the Whitewater River which is a violation of the conditions of the NPDES permit and the Ohio Administrative Code 6111.04.
   - Provide measures taken to prevent such an occurrence in the future.
   - ***Response Required: 30 days from the date of this letter.***
8) Required records/reports for the plant not able to be presented for review, particularly laboratory records. The facility's records were noted as being disorganized, including analytical results generated from the facility's onsite laboratory and contract laboratory, MASI.
   - Provide measures taken to allow easy retrieval of facility records/laboratory results. This is to include a plan that addresses the observed state of

disorganization of laboratory records. The goal of this plan is to organize these records and maintain them in an organized state.

- ***Response Required: 30 days from the date of this letter.***

9) Lack of a Laboratory Quality Assurance Manual that includes Standard Operating Procedures (SOPs).
   - Develop Standard Operating Procedures, as part of an overall, Laboratory Quality Assurance Manual for laboratory analyses performed in-house and sample collection and protocols. If this document is located, then this document is to be reviewed and revised as appropriately.
   - ***Response Required: 180 days from the date of this letter.***
10) Lack of certified weights that are consistent with the expected weight range to be weighed.
   - Obtain certified weights (NIST or ASTM/ANSI) that are consistent with the weight range to be weighed. If the appropriate weights have been found, please provide any expiration date that may be associated with the weight. (100 gram and 200 gram certified weights were available)
   - ***Response Required: 30 days from the receipt of this letter.***
11) Lack of annual calibration of the facility's thermometers against NIST traceable thermometer reflected by attaching the calibration date and any associated correction factor. This includes any used in the laboratory and the thermometer in the auto-sampler within the equipment shed adjacent to the effluent channel.
   - Calibrate these thermometers against a NIST thermometer. Please note your contract analytical lab may be able to assist with this item or another wastewater treatment plant's NIST thermometer could be utilized.
   - ***Response Required: 30 days from the receipt of this letter.***
12) Absence of the display of the valid Operator's License certificate in the STP's laboratory/administration building.
   - Provide a copy of the Operator of Record valid certificate and display this copy at the wastewater treatment plant in a protected area.
   - ***Response Required: 30 days from the receipt of this letter.***

Please note that the above violations have varying response times. I realize that you were faced with a difficult situation concerning the operator whose employment you terminated. We gratefully acknowledge the actions you have taken to correct the situation. I also appreciate your willingness to share certain information relating to the personnel changes at the STP. However, the Village officials are ultimately accountable for adherence to the requirements of the NPDES permit.

I would like to offer assistance to you such as a permit requirement overview and/or a simple overview of key inspection items. The purpose of the assistance would be to promote an understanding on your part so that you may have tools to effectively manage your Village's NPDES permit. This may help you better understand what the operator is reporting to you.

I ask that if you have any questions and/or comments, please do not hesitate to call me at (937) 285-6033 or write me at glen.vonderembse@epa.ohio.gov.

Sincerely,

Glen Vonderembse, PE
Environmental Engineer 2
Division of Surface Water

GV/kb

Enclosure: Compliance Evaluation Inspection Report

ec: Steve Crawford, Operator of Record

OhioEPA

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**
OH0040584	1PA00017*ED	8/29/2013	C	S	1

Section B: Facility Data		
Name and Location of Facility Inspected	**Entry Time**	**Permit Effective Date**
Village of New Madison Wastewater Treatment Plant 2115 Rush Road Nee Madison, OH 45346	10:30 am	December 1, 2011
	Exit Time	**Permit Expiration Date**
	3:25 pm	November 31, 2016
Name(s) and Title(s) of On-Site Representatives	**Phone Number(s)**	
Steve Crawford, Operator of Record Steve Scharr, Village of New Madison Road Department	(937) 621-1405	
Name, Address and Title of Responsible Official	**Phone Number**	
Mayor and Council Village of New Madison P.O. Box 1 New Madison, OH 45346	(937) 996.3011	

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

Section D: Summary of Findings (Attach additional sheets if necessary)

Please see page 11 of this Inspection Report.

Inspector	Reviewer
9/24/2013	9/24/2013
Glen Vonderembse, PE — Date Division of Surface Water Southwest District Office	Martyn Burt — Date 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) Flows and loadings conform to NPDES permit.....	**Y**
(c) Treatment processes are as described in permit application...	**Y**
(d) All discharges are permitted.....	**Y**
(e) Number and location of discharge points are as described in permit.....	**Y**
(f) Storm water discharges properly permitted.....	**Y**

Comments/Status:

The Average Daily Design Flow for the WWTP is 0.13 MGD. The reported average daily flow for the period of August 1, 2012 thru August 1, 2013 is 0.069 MGD. Flow data for the month of March, 2013 is not included in this reported average, since it was not reported for March, 2013.

Section F: Compliance

(a) Any significant violations since the last inspection.....	**Y**
(b) Appropriate Non-compliance notification of violations.....	**N**
(c) Permittee is taking actions to resolve violations.....	**Y**
(d) Permittee has a compliance schedule.....	**N**
(e) Compliance schedule contained in.....	**N/A**
(f) Permittee is in compliance with schedule.....	**N/A**
(g) Has biomonitoring shown toxicity in discharge since last inspection	**N/A**

Comments/Status:

For the compliance review period of August 1, 2012 thru August 1, 2013, a total of 10 limit violations occurred. These were Nitrogen-Ammonia limit violations reported in October and November of 2012. 11 frequency violations occurred in the mentioned review period. The metal and cyanide parameter results were not submitted in September, 2012. As well as, the monitoring results for oil and grease for the months of December, 2012 and June, 2013. Responses for all these violations, except for the June 2013 oil and grease monitoring results, have been provided.

Section G: Operation & Maintenance

Treatment Works:

Treatment facility properly operated and maintained

(a) Standby power available.....generator **X** or dual feed ☐..... **Y**

i. What does the back-up power source operate.....

Entire Wastewater Treatment Plant

ii. How often is the generator tested under load.....

Automated Cycles: Exercised weekly; Full load test once per month.

(b) Which components have an alarm system available for power or equipment failures.....

Lift station, power, pre-aeration, influent screen, ditch brush aerators, clarifiers, ultraviolet disinfection, post-aeration.

(c) All treatment units in service other than backup units..... **Y**

(d) What method is used for scheduling routine & preventative maintenance (calendar, software, etc.).....

File Card System to be employed from Mid-August, 2013 into the future. Information for the previous maintenance scheduling system was not available for review

(e) Any major equipment breakdown since last inspection..... **Y**

(f) Operation and maintenance manual provided and maintained..... **Y**

(g) Any plant bypasses since last inspection..... **N/E**

(h) Any plant upsets since last inspection..... **Y**

Comments/Status:

See Page 12 of this Report.

Section G: Operation & Maintenance con't

Record Keeping/Operator of Record:

(a) Wastewater Treatment Works classification (OAC 3745-7)..... **I**
(b) Operator of Record holds unexpired license of class required by Permit..... **Y**
(c) Copy of certificate of Operator of Record displayed on-site..... **N**
(d) Has the Operator of Record submitted an ORC Notification form.. **Y**
(e) Minimum operator staffing requirements fulfilled (OAC 3745-7).... **Y**
(f) If a Staffing Reduction plan has been approved, are the stipulations of the plan being met..... **N/A**
(g) Operator of Record log book provided..... **Y**
(h) Format of log book (e.g. computer log, hard bound book)

Hard Bound Log Book reviewed with initial log entry August 19, 2013. A log book recording activities prior to August 19, 2013 could not be found. See page 13 for further detail.

(i) Log book kept onsite (in an area protected from weather)..... **Y**
(j) 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 operator and maintenance activities (including preventative maintenance, repairs and request for repairs, process control test results, etc.)..... **Y**
  iv. Laboratory results (unless documented on bench sheets)... **Y**
  v. Identification of person making entries..... **Y**
(k) Has the Operator of Record submitted written notifications 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***

Comments/Status:

The current Operator of Record, Steve Crawford, is to place a copy of his current certificate at the WWTP.

Please see page 12 of this inspection for further detail.

Section G: Operation & Maintenance con't

Collection System:

(a) Are there pump stations in the collection system..... **Y**
  i. How many publicly-owned pump stations equipped with permanent standby power or equivalent..... **1**
  ii. How many pump stations have telemetered alarms..... **2**
  iii. How many pump stations have operable alarms..... **2**
(b) Any chronic collection system overflows since last inspection..... **N**
(c) Regulatory agency notified of all overflows..... **N/A**
(d) Are there CSOs in the collection system..... **N**
if so, what is the LTCP status.....

N/A

(e) How are CSOs monitored (chalk, block, level sensor, etc.).....

N/A

(f) Portable pumps available for collection system maintenance..... **Y**
(g) RDII Program established and active..... **N**
(h) Any WIB complaint received since last inspection..... **N**
(i) Is there a WIB response plan..... **N/E**
(j) Is any portion of the collection system at or near dry weather capacity..... **N**

Comments/Status:

Randy Scharr was present for a portion of this inspection. He provided information on the collection system.

The Sewage Treatment Plant's (STP) influent lift station has a generator backup. The remaining lift stations do not have a dedicated generator. A pump on a truck is available to bypass pump at the lift stations.

It is noted that in the previous Compliance Evaluation Inspection, it was recommended that a Water in Basement (WIB) response plan be developed and available. Although no known occurrences of WIB have happened, the plan would be available if needed.

Section H: Sludge Management

(a) Method of Sludge Disposal... X Land Application
☐ Haul to Another NPDES Permitee
☐ Haul to a Mixed Solid Waste Landfill

*if one of the selected methods is land application, complete applicable charts.

Class A - Exception Quality Sewage Sludge (monitoring station 584)

Pathogen Reduction Alternative	84370 Vector Attraction Reduction Options							
	Option 1 -38% Volatile Solids Reduction	Option 2 -Anaerobic Bench Scale Analysis	Option 3 – Aerobic Bench Scale Analysis	Option 4 – Specific Oxygen Uptake Rate	Option 5 – Aerobic Time and Temperature	Option 6 – Alkali Addition	Option 7 – >75% Percent Solids without Unstabilized Solids	Option 8 - >75% Percent Solids with Unstabilized Solids
Alternative 1 – Time and Temperature Regime (84369)	☐	☐	☐	☐	☐	☐	☐	☐
Alternative 2 – High pH and High Temperature (84369)	☐	☐	☐	☐	☐	☐	☐	☐
Alternative 3 – Other Processes (84369)	☐	☐	☐	☐	☐	☐	☐	☐
Alternative 4 – Unknown Processes (84369)	☐	☐	☐	☐	☐	☐	☐	☐
Alternative 5 – Composting (84397)	☐	☐	☐	☐	☐	☐	☐	☐
Alternative 5 – Heat Drying (84397)	☐	☐	☐	☐	☐	☐	☐	☐
Alternative 5 – Heat Treatment (84397)	☐	☐	☐	☐	☐	☐	☐	☐
Alternative 5 – Thermophilic Aerobic Digestion (84397)	☐	☐	☐	☐	☐	☐	☐	☐
Alternative 5 – Beta Ray Irradiation (84397)	☐	☐	☐	☐	☐	☐	☐	☐
Alternative 5 – Gamma ray Irradiation (84397)	☐	☐	☐	☐	☐	☐	☐	☐
Alternative 5 – Pasteurization (84397)	☐	☐	☐	☐	☐	☐	☐	☐
Alternative 6 - Approved Equivalent Process	☐	☐	☐	☐	☐	☐	☐	☐

Class B Sewage Sludge (monitoring station 581)

Pathogen Reduction Alternative	84370 Vector Attraction Reduction Options									
	Option 1 -38% Volatile Solids Reduction	Option 2 -Anaerobic Bench Scale Analysis	Option 3 – Aerobic Bench Scale Analysis	Option 4 – Specific Oxygen Uptake Rate	Option 5 – Aerobic Time and Temperature	Option 6 – Alkali Addition	Option 7 – >75% Percent Solids without Unstabilized	Option 8 - >75% Percent Solids with Unstabilized	Option 9 – Land Injection	Option 10 – Immediate Incorporation
Alternative 1 - Geometric Mean of Seven Fecal Samples (84369)	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Alternative 2 - Aerobic Digestion (46396)	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Alternative 2 - Air Drying (46396)	☐	☐	☐	X	☐	☐	☐	☐	☐	☐
Alternative 2 - Anaerobic Digestion (46396)	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Alternative 2 – Composting (46396)	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Alternative 2 - Lime Treatment (46396)	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Alternative 3 – Approved Equivalent Process	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

(b) Has amount of sludge generated changed significantly since the last inspection..... **N/E**

(c) How much sludge storage is provided at the plant.....

25,000 gallons (2) 12,500 gallons of liquid sludge storage exists.

(d) Records kept in accordance with State and Federal law (5 years according to OAC 3745-40-06)..... **N/E**

(e) Any complaints received in last year regarding sludge..... **N/E**

(f) 5/8" screen at headworks for facilities that land apply sludge..... **Y**

(g) Are sludge application sites inspected to verify compliance with NPDES permit..... **N/E**

(h) Is a contractor used for sludge disposal..... **Y**

If so, what is the name of the contractor.....

Ryan Snyder

Comments/Status:

See page 13 of this inspection report.

Section I: Self-Monitoring Program

Flow Measurement:

(a) Primary/Secondary flow measuring devices (e.g. weir with ultrasonic level sensor):
Weir and Ultrasonic Level Detector

(b) Flow meter calibrated annually ..... **Y**
(Date of last calibration: April, 2013)

(c) 24-hour recording instruments operated and maintained..... **Y**

(d) Flow measurement equipment adequate to handle full range of flows..... **Y**

(e) All discharged flow is measured..... **Y**

Comments/Status:

Totalizer exists in enclosed structure adjacent to the UV unit operation (or effluent channel). This information is also recorded in the facility's operations building. An auto sampler was located in the protective structure adjacent to the effluent channel.

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**
(see GLC page)

(d) 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)..... **N/E**

Comments/Status:

Auto-sampler employed for the collection of effluent 24 hour composite samples.

Monitoring records maintenance could not be determined. Paperwork organization issues exist. Some recent records for basic effluent monitoring were available. (Please see page 14, Record Keeping/Operator of Record section of this inspection report for further information.)

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

Laboratory:

General

(a) Does the Quality Assurance Manual contain written Standard Operating Procedures (SOP's) for all analysis performed onsite..... **N**

(b) Do SOP's include the following if applicable..... **N**

- Title
- Scope and Application
- Summary
- Sample Handling and Preservation
- Interferences
- Apparatus and Materials
- Reagents
- Procedure
- Calculations
- Quality Control
- Maintenance
- Corrective Action
- Reference (Parent Method)

Note: Standard Methods 1020A establishes that "Quality assurance (QA) is the definitive program for laboratory operation that specifies the measure required to produce defensible data of know precision and accuracy. Standard operating procedures are to be used in the laboratory in sufficient detail that a competent analyst unfamiliar with the method can conduct a reliable review and/or obtain acceptable results." SOPs should be developed for each analytical procedure.

(c) EPA approved analytical testing procedures used (40 CFR 136.3).. **Y**

(d) If alternate analytical procedures are used, proper approval has been obtained..... **N/A**

(e) Analyses being performed more frequently than required by permit. **N**

(f) If (e) is yes, are results in permittee's self-monitoring report..... **N/A**

(g) Satisfactory calibration and maintenance of instruments/equipment. **See Page 14**

(h) Commercial laboratory used..... **Y**

Parameters analyzed by commercial lab: **E. coli; CBOD; Total Phosphorous; Oil & Grease; Cyanide; Metals (Ni, Zn, Cd, Pb, Cr (Total Recoverable & Dissolved Hexavalent); Cu; Hg (Low Level))**

Lab name: **MASI**

Discharge Monitoring Report Quality Assurance (DMRQA)

(a) Participation in latest USEPA quality assurance performance sampling..... **N/A**

Date:

(b) Were any parameters "Unsatisfactory"..... **N/A**

(c) Reasons for "Unsatisfactory" parameters.....

Comments/Status:

See page 14 of this inspection report.

Section J: Effluent/Receiving Water Observations

Outfall # **001**
Outfall Description: **Field Tile (Access from Thomas Road)**

Receiving Stream: **East Fork of the Whitewater River**
Receiving Stream Description: **This warm water habitat was clear with very light flow.**

Comments/Status:

See page 14 of this inspection report.

Section K: Multimedia Observations

(a) Are there indications of sloppy housekeeping or poor maintenance in work and storage areas or laboratories..... **Y**
(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:

See page 15 of this inspection report.

Additional Information

Summary of Findings

Overall the sewage treatment plant (STP) is rated as Unsatisfactory. The following list provides the major observations that resulted in either a rating of Marginal or Unsatisfactory for the areas identified in Section C of this inspection report (Please see page 1).

1. Records/Reports - Unsatisfactory
    - Missing/incomplete records. Certain records were not available at the time of inspection. These may exist. A lack of a filing and dysfunctional record organization was noted.
    - Failure to report instances of non-compliance to the Ohio EPA. Specifically equipment issues leading to passage of solids into the receiving stream.
    - Inability to provide an Operator's Log Book containing information such as arrival and departure times and performed activities.
2. Operations & Maintenance – Unsatisfactory
    - At the time of inspection, all of the facility's unit operations were noted as being on-line and operational. However, it is known, via notification to Ohio EPA that 2 of 2 clarifiers were offline, allowing solids to pass to the receiving waterway. One of which was completely drained. Two brush aerators were in a state of disrepair. Damaged and burnt out ultraviolet bulbs were replaced by the current Operator with available spares. Grit and other debris were removed from the effluent channel. A significant accumulation was reported at the time of inspection, indicative of a lack of maintenance.
3. Laboratory – Unsatisfactory
    - A Laboratory Quality Assurance manual inclusive of Standard Operating Procedures was not available.
    - Appropriate certified standard weights that bracket or are similar to the item to be weighed on the balance were not available. Two weights were found, but these are too heavy. They do not reflect the range to be weighed.
    - Lack of calibration of thermometers with a NIST traceable thermometer.
    - Bench sheets for parameter analyses performed in the laboratory were not available.
    - A log book containing measurements of outfall parameters to be reported lacked entries on non-weekend or holiday days.
    - On several CBOD bench sheets, the blank (control) sample's oxygen depletion was greater than 0.2 mg/l, exceeding the allowable depletion for a valid test. The CBOD bench sheet does

provide the maximum allowable blank (control) that for a valid sample.

4. Effluent/Receiving Waters – Unsatisfactory
    - The receiving waters showed evidence of solids being discharged into the receiving stream.
5. Sludge Storage/Disposal – Marginal
    - No sludge has been processed from the sludge holding tanks during the past several months. Three sludge drying beds are available to receive sludge for drying.
6. Self-Monitoring Program – Unsatisfactory
    - Incomplete, disorganized records.
    - Laboratory metal analyses not performed.
    - Oil and Grease monitoring analyses not performed on two separate occasions.

Operation and Maintenance Treatment Works

At the time of inspection of inspection, all of the major STP components were observed to be on-line. It was reported that the following conditions were found by the current STP Operator of Record found the following conditions at the STP on the morning of August 19, 2013. Any corrective action taken by the current operator is also identified with each item. 1) The northern oxidation ditch's brush aerator's motor frame rotated disabling its ability to turn the brush aerator. A nut was replaced to properly mount the motor frame to the drive assembly to return this back to service. 2) The southern oxidation ditch brush aerator, all of the drive belts failed rendering the aerator inoperable. The belts were replaced to return this aerator back to service. 3) The north clarifier rotating assembly shear pin failed. The reason for failure is not known. A new shear pin was installed on the 19th of August and the unit has been operating since pin replacement. 4) The south clarifier was found drained and non-functional. It was determined that the motor would not start due to a blown breaker. An electrician was called on the 19th of August. The electrician reset the Allen-Bradley breaker and also demonstrated the steps necessary to reset such a breaker with the current operator of record. 5) The ultraviolet disinfection unit operation was found to have 9 bulbs in a non-serviceable condition. A couple of these bulbs were cracked. All of the spare bulbs were utilized to replace these damaged bulbs. At the time of this inspection, the last E. coli analytical result was reported at less than 50 #/100 ml, indicating that the disinfection system is functioning.

Record Keeping/Operator of Record

It is noted that the former Operator of Record, Travis Gibbons, is no longer working for the Village of New Madison. His employment with the Village was terminated by the Village of New Madison on Friday, August 16, 2013.

An operator log book that recorded activities and other relevant plant data was not available. The current Operator of Record indicated that he has yet to find this record. The only available bound record for this facility was that used to record certain effluent observations which occur immediately after the UV disinfection system. This bound record did not include a record of the daily activities. (It is noted that the current Operator of Record is not using this log book and has started a new log of correct format) Date and time in/time out times are included, but the listed hours do not meet the minimum staffing requirements for a Class I facility. It was noted that in this bound record that for the 12th, 13th and 14th of June, no information was recorded for the parameters of dissolved oxygen, temperature and pH. However, data for these parameters was reported via the electronic Discharge Monitoring Reporting (eDMR) system.

Laboratory bench sheets appeared to have been used in the past. These were found to be disorganized and incomplete. Some CBOD bench sheets were found and viewed. It could not be determined if these results were used for reporting or internal monitoring. A portion of these bench sheets revealed oxygen depletion for the controls (or blanks) greater than 0.2 mg/l. Standard laboratory protocols dictate that the analysis be rerun if this occurs. It was not determinable if these were rerun. Laboratory chain of custody papers could not be found. Analytical results for the contracted laboratory could not be found at first. A manila folder was discovered while looking for another item during this inspection. A quick overview of this folder showed a stack of analytical results. However, there was no order; compliance analytical for wastewater and certain drinking water results were found in this folder. It was not able to be determined if this manila folder contained the necessary wastewater results.

Sludge Management

Outside sludge/liquid waste hauler is not accepted anymore at the facility, which may alleviate the need to for additional storage capacity noted in a previous sludge compliance inspection by Jacob Howdyshell, Ohio EPA, in November, 2010. It is recommended that the sludge generation rate be analyzed to make a determination if expanded sludge storage capacity is necessary.

Four items were rated as N/E. The purpose of the N/E was due to the lack of information available that would enable a determination of the referenced items. The change in sludge generation could not be determined since no sludge had been processed from the sludge holding tanks. It was stated by Steve Crawford that sludge processing would occur in the near future, once other operational issues were addressed. Three sludge drying beds are available to receive the aerobically digested sludge. At the time of inspection, the sludge records were not available for review. It could not be verified that complaints have or have not been received. Steve Crawford has not performed any sludge application inspections. He was not aware of any previous sludge site inspection records.

Self Monitoring Program

The Quality Assurance (QA) Manual for the laboratory was not able to be located. This is the document in which Standard Operating Procedures (SOPs) for performed lab analyses are to be kept. This manual was not able available for review at the time of inspection. Therefore, this item was marked as a "No." SOPs for performed laboratory procedures must be developed and incorporated into the lab's QA manual. If the existing QA Manual for the laboratory is found, then this document is to be reviewed and revised as appropriately.

Steve Crawford indicated that Nitrogen-Ammonia (N-NH3) and Total Suspended Solids will be performed in-house. Although, E. coli and CBOD monitoring is currently being performed by MASI, in the longer term he intends to perform these in-house.

Effluent/Receiving Water Observations

Photograph 1 – Village of New Madison WWTP Outfall 001, Evidence of Solids Discharge to the receiving stream. Date of Photograph is August 20, 2013.

Solids were observed deposited along a developed drainage feature between the end outfall pipe and the receiving stream, Please photograph 1. These solids were observed within the receiving stream, downstream of the WWTP's Outfall 001. It could not be determined the duration of this solids discharge event. The observed discharge was solids free.

Multimedia Observations

The records and associated documentation within the laboratory was neither organized nor complete. A folder of outside laboratory analytical results was discovered during the inspection. These MASI results appeared to be a mix of wastewater and drinking water compliance analytical data. Other necessary and pertinent data sheets could not be found. A log book found was that used to record parameter information recorded downstream of the UV unit. The bench books in the laboratory were incomplete. Chain of custody's were not available for review at the time of inspection.