COUNTY OF LUCAS, OHIO

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BOND
GENERAL SPECIFICATIONS

LAND APPLICATION OF BIOSOLIDS
FROM THE MAUMEE RIVER
WASTEWATER TREATMENT PLANT

ADDENDUM #2 – June 13, 2013

On Page 10, III SUPPLEMENTARY CONDITIONS – Delete Item 11. See Attachment "B" of this addendum for forms and affidavits as referenced in this section that must be complete in their entirety and notarized as necessary (for Items 1 through 10).

Following Page 22 of the General Specifications, add the following to the Bid Specifications:

ATTACHMENT A – MRWWTP BIOSOLIDS MANAGEMENT PLAN

ATTACHMENT B – FORMS/AFFIDAVITS

ATTACHMENT A – MRWWTP BIOSOLIDS MANAGEMENT PLAN

THE MAUMEE RIVER WASTEWATER TREATMENT PLANT

BIOSOLIDS MANAGEMENT PLAN

MAY 2013

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THE MAUMEE RIVER WASTEWATER TREATMENT PLANT

BIOSOLIDS MANAGEMENT PLAN

I) GENERAL INFORMATION

A) Generator and Contractor

Generator: Maumee River Wastewater Treatment Plant
5758 North River Road
Waterville, Ohio 43566
(419) 213-8740

Contractor: The Maumee River Wastewater Treatment Plant (MRWWTP) utilizes independent contractors for the transport and land application of its biosolids product. The contractor is chosen through a competitive bid process and as a result, may change periodically. All persons retained by the MRWWTP for the purpose of biosolids land application will be required to adhere to the conditions set forth in this plan.

B) Service Area

It is anticipated that biosolids from the Maumee River Wastewater Treatment Plant (MRWWTP) will be applied in the following counties:

Ohio: Fulton, Henry, Lucas, Ottawa, Sandusky, Williams, and Wood

C) Spreading Agreement

The contractor is responsible for securing the necessary application sites and for executing any written biosolids spreading agreement with the land owner and/or site manager. A model agreement is provided at Appendix A.

II) BIOSOLIDS INFORMATION

The MRWWTP is an activated sludge facility serving an estimated residential population of 58,000 in western Lucas County, as well as portions of neighboring Wood County, Ohio and Monroe County, Michigan. The average daily influent flow for calendar year 2012 was 14.9 million gallons of which approximately 90% can be classified as domestic in nature with commercial and industrial concerns accounting for the remaining 10%.

Wastewater entering the MRWWTP undergoes screening and grit removal prior to primary clarification. Sludge and scum collected from the primary settling tanks is pumped to anaerobic digesters. Following primary clarification, the wastewater is aerated with activated sludge. In the later stages of the activated sludge process there is the opportunity for the addition of ferrous chloride to aid in the chemical removal of phosphorus. Final clarification follows the activated sludge process. Activated sludge in excess of that required for effec-

tive treatment of wastes in the aeration basins is collected from the final settling tanks and pumped to the primary settling tanks where it is commingled with the primary sludge and sent to anaerobic digesters.

The anaerobic digesters consist of 3.3 million gallons of heated (35^{o} C) and mixed storage which provides primary digestion with an additional 1.1 million gallons of unheated, unmixed secondary digester treatment. Current sludge flow from the primary settling tanks averages around 50,000 gallons/day. This provides in excess of 50 days of primary digestion with approximately 20 additional days of secondary digestion. The treatment provided to the sludge assures that the material exceeds the requirements of 40 CFR 503; Appendix B; Section A.3 as a process to significantly reduce pathogens (PSRP).

Following the digestion process, the resulting biosolids are processed through a High velocity Centrufuge or a backup 1 meter Filter Press, to increase the dry solids content from approximately 3% to 28%, using the Centrifuge or 17% maximum, using the Filter Press. This dewatered sludge cake is stockpiled at the MRWWTP on an uncovered concrete storage pad until conditions are favorable for application of the biosolids to agricultural properties located within the approved service area listed above in Section I.B. During calendar year 2012, the MRWWTP produced and land applied 2202 dry tons of biosolids. Leachate and runoff from this storage pad is collected and returned to the head of the plant for additional treatment.

The effluent from the final settling tanks is disinfected using ultraviolet light. The effluent is then mixed with the flow in Ward Ditch before being discharged to the Maumee River.

III) BIOSOLIDS TREATMENT / QUALITY

The MRWWTP produces a Class B biosolids material that meets the requirements of 40 CFR 503.32(b)(3) and the associated Appendix B; Section A.3 for pathogen reduction and 40 CFR 503.33(b)(1) for vector attraction reduction.

A) Pathogen Reduction

For calendar year 2012, the MRWWTP utilized the pathogen reduction method specified at 40 CFR 503.32(b)(3). The following table provides certain information used to ascertain compliance with the referenced pathogen reduction alternative:

PLANT SOLIDS HANDLING SUMMARY						
2012						
MONTH	SLUDGE TO DIG. 1000 GAL. TOT/MON	PRIMARY SLUDGE CONCENTRATIONS		CAKE SOLIDS REMOVAL		
		% T.S. AVG.	% V.S. AVG.	DRY TONS TOTAL/MON	% T.S. AVG.	% V.S. AVG.
JAN	2107.5	4.8	77.6	223.7	27.4	56.3
FEB	1911.2	4.2	82.1	202.7	27.1	57.9
MAR	2017.0	3.5	80.7	192.5	26.7	60.3
APR	1884.2	4.3	79.1	158.5	26.6	59.6
MAY	1766.9	4.8	79.1	190.8	27.2	59.2
JUN	1979.3	4.6	77.3	153.2	27.0	58.8
JUL	2047.6	4.8	73.8	206.4	26.7	58.5
AUG	2133.3	3.2	79.5	189.3	27.0	58.2
SEP	1601.9	4.8	72.2	147.0	26.5	58.3
OCT	2010.0	3.7	79.0	174.3	26.0	58.1
NOV	2113.3	1.0	77.6	200.2	26.3	58.0
DEC	1711.4	3.9	82.9	163.4	26.3	57.9
AVG	1943.3	4.4	78.4	183.5	26.7	58.4

Primary sludge flow during this period averaged about 50,000 gallons/day into anaerobic digesters with a total capacity of 3.3 million gallons maintained at 35° C. The solids content of the primary sludge entering the digesters averaged 4.4% while the solids content of the biosolids in the digesters is estimated to be approximately 2.7%. Digester supernatant runs about 8,000 gallons/day with a solids content of around 26,000 mg/L. Using these figures, it is possible to calculate a mean cell residence time (MCRT):

$$\text{MCRT (days)} = \frac{\text{Total Solids in Digester (lbs.) - supernatant (lbs.)}}{\text{Total Solids in raw sludge fed (lbs./day)}} =$$

$$\frac{(27{,}000 \text{ mg/L})(3.3 \text{ mil. gal.})(8.34 \text{ lbs/gal}) - (26{,}000 \text{ mg/L})(0.008 \text{ mil. gal.})(8.34 \text{ lbs/gal})}{(44{,}000 \text{ mg/L})(0.050 \text{ million gallons})(8.34 \text{ lbs/gal})} = 40.4 \text{ days}$$

(source: Anaerobic Sludge Digestion; Appendix F.7; EPA 430/9-76-001; February 1976)

The data furnished above provides evidence that this facility satisfies the pathogen reduction requirements of 40 CFR 503.32(b)(3) as defined by Part A.3 of Appendix B.

B) Site Restrictions

As a Class B material, sites that receive MRWWTP biosolids are subject to certain restrictions designed to reduce the likelihood of pathogen transfer from biosolids to any type of corporeal being – either through direct contact or indirect association. The MRWWTP is committed to adhering to the following pathogen standards site restrictions:

Restricted Activity	Site Restriction
Harvest of food crop touching the ground	14 months after application
Harvest of root crop: 1) if biosolids remain on soil surface > 4 months; 2) if biosolids remain on soil surface < 4 months.	1) 20 months after application 2) 38 months after application
Harvest of other food, feed, or fiber crop	30 days after application
Grazing of animals	30 days after application
Harvest of turf for high contact sites	12 months after application
Access to sites with high potential for public exposure	Restrict for 12 months
Access to sites with low potential for public exposure	Restrict for 30 days

C) Vector Attraction Reduction

Data provided in the table at Section III.A above provides evidence that this facility effectively satisfies the vector attraction reduction (VAR) requirements of 40 CFR 503.33(b)(1). During calendar year 2012, the sludge removed from the primary settling tanks at the MRWWTP had an average volatile solids (VS) content of 78.4%. The average VS content of the biosolid material eventually processed for land application was 58.4%. The reduction of volatile solids is calculated as follows:

$$\%VS_{Reduction} = \frac{\%VS_{(raw)} - \%VS_{(stabilized)}}{\%VS_{(raw)} - [\%VS_{(raw)} \times \%VS_{(stabilized)}]} =$$

$$\frac{0.784 - 0.584}{0.784 - [0.784 \times 0.584]} = 0.61.3 \times 100 = 61.3\%$$

(source: Preparing Sewage Sludge For Land Application or Surface Disposal; Section 3.3; EPA 831B-93-002a; August 1993)

The data furnished above provides evidence that this facility satisfied the vector attraction reduction requirements of 40 CFR 503.33(b)(1) for calendar year 2012.

Ensuring that the MRWWTP continues to meet the requisite VAR begins with the collection of samples on every day that biosolids are processed at the MRWWTP. These samples are analyzed to determine the total and volatile solids content of both the primary sludge and the material coming off of the High Speed Centriguge or the One Meter Filter Press. The solids percentages thus obtained are inserted into the volatile solids reduction equation provided above to ascertain the achievement of the necessary volatile solids reduction.

D) Metals and Nutrients

A review of the analytical data for calendar year 2012 shows that the biosolids produced by the MRWWTP consistently meet the levels specified for metals concentrations in 40 CFR 503.13(b)(3). The following table provides confirming data:

2012 METAL DATA									
MONTH	**As**	**Cd**	**Cu**	**Pb**	**Hg**	**Mo**	**Ni**	**Se**	**Zn**
Feb	13.2	<2.0	267	19.5	0.53	15.2	27.8	7.8	1080
April	12.1	<2.0	247	19.1	0.93	14.6	25.3	7.8	1200
June	11.3	<2.0	259	18.5	1.19	16.3	23.4	6.6	1190
Aug	10.1	<2.0	302	28.9	0.83	18.8	40.5	4.9	1920
Oct	9.1	<2.0	294	21.8	0.99	19.5	29.1	5.1	1590
Dec	11.1	<2.0	317	18.5	0.73	21.0	24.1	4.6	1270

All concentrations are expressed in mg/drykg

One of the primary reasons for the land application of municipal wastewater biosolids is the opportunity to recycle valuable plant nutrients. The following table provides nutrient information for MRWWTP biosolids:

2012 NUTRIENT RESULTS					
MONTH	**TKN**	**NH_3 – N**	**P**	**K**	
FEB	38400	9290	28500	659	
APR	42600	11500	30400	826	
JUN	36400	7590	28900	609	
AUG	34000	7370	28200	535	
OCT	26300	7890	282900	548	
DEC	41500	8710	28000	512	
AVERAGE	28800	8720	36500	615	

Nutrient concentrations are expressed in mg/drykg

Because MRWWTP biosolids are derived from an anaerobic digestion source, no nitrate nitrogen is expected. The results of the most recent priority pollutant scan on MRWWTP biosolids are provided at Appendix D.

IV) LOADING RATES

Biosolids generated at the MRWWTP will be applied at the most restrictive application rate as determined by considering dry weight per acre, nutrient levels, and metals.

A) Nutrient Levels

Nitrogen is the nutrient of primary concern when determining the annual biosolids application rate due to the potential for various forms of nitrogen to leach into groundwater supplies or into surface waters through artificial drainage mechanisms if applied at rates that exceed crop requirements. Phosphorus, even though typically applied in quantities that exceed crop uptake, is bound tightly to the soil matrix and is not likely to leach out of the root zone. The principal means of phosphorus movement from the area of application, other than crop removal, is through the actual loss of soil from the site – primarily via wind and/or water erosion. The level of potassium in MRWWTP biosolids (refer to the nutrient analysis table in Section III.C) will not supply the annual nutrient needs of crops commonly grown in our area of operation and is therefore not factored into any nutrient loading equation.

Since nitrogen will be the application limiting nutrient, a nitrogen loading worksheet has been prepared using the average nutrient analyses for calendar year 2012 (see nutrient analysis table in Section III.C).

Nitrogen Application Loading Rate Worksheet

1.	Total available nitrogen from biosolids		
	a. Ammonium nitrogen Calculation: analytical result for NH_3-N (mg/kg) x 0.002 x Volatilization Factor[1]	8.72	lbs/ton
	b. Mineralized organic nitrogen for first year of application Calculation: analytical result for Org-N (mg/kg) x 0.002 x 0.30 (mineralization rate)[2]	16.7	lbs/ton
	c. Nitrate nitrogen	0	lbs/ton
	d. Total	25.4	lbs/ton
2.	Available nitrogen in the soil Estimate of available nitrogen from previous biosolids applications[3]	0	lbs/acre
3.	Nitrogen supplied from other sources		
	a. Nitrogen from supplemental fertilizers	0	lbs/ton
	b. Nitrogen from previous crop[4, 5]	0	lbs/ton
	c. Other (if appropriate)(specify): _____	0	lbs/ton
	d. Total (add a, b, c)	0	lbs/ton
4.	Total nitrogen available from existing sources. add 2 and 3d	0	lbs/acre
5.	Total nitrogen requirement of crop.[6] Type of crop: corn	200	lbs/acre
6.	Supplemental nitrogen needed from biosolids.	200	lbs/acre

subtract 4 from 5

7. Agronomic loading rate. 7.87 dry tons
divide 6 by 1d

[1] - Land Application of Sewage Sludge: A Guide for Land Appliers on the Requirements of the Federal Standards for the Use or Disposal of Sewage Sludge, 40 CFR Part 503; U.S. EPA Publication EPA/831-B-93-002b; December 1994; Appendix E; p. E-7; Exhibit E-2.

[2] - Ohio Guide for Land Application of Sewage Sludge; The Ohio State University - Cooperative Extension Service; Extension Bulletin 598; September 1982; p. 10.

[3] - Land Application of Sewage Sludge: A Guide for Land Appliers on the Requirements of the Federal Standards for the Use or Disposal of Sewage Sludge, 40 CFR Part 503; U.S. EPA Publication EPA/831-B-93-002b; December 1994; Appendix E; p. E-8; Worksheet 2.

[4] - Tri-State Fertilizer Recommendations for Corn, Soybeans, Wheat, and Alfalfa; Michigan State University, The Ohio State University, and Purdue University; Extension Bulletin E-2567; August 1996; p. 9; Table 9 (additional comments #1).

[5] - Ohio Livestock Manure & Wastewater Management Guide; The Ohio State University - Cooperative Extension Service; Bulletin 604; 1992; p. 41.

[6] - Ohio Livestock Manure & Wastewater Management Guide; The Ohio State University - Cooperative Extension Service; Bulletin 604; 1992; p. 39.

B) Metals

The large domestic contribution to the total wastewater flow entering the MRWWTP coupled with an aggressive industrial pretreatment program results in a sludge with metals levels well below the monthly average concentrations authorized by 40 CFR 503.13(b)(3). Using the highest concentration for each parameter reported in the “Metals Analyses” table of Section III.C, it is possible to calculate an estimated site life for each location to which biosolids are applied using the cumulative pollutant loading rates (CPLR) and the following formula:

$$\text{Site Life (years)} = \frac{\text{Cumulative Pollutant Loading Rate (lbs/acre)}}{\text{(mg/kg of pollutant in biosolids)(0.002)(7.87dry tons biosolids/acre/year)}}$$

Metals Limitations (dry weight basis)		
Approximate Site Life		
Parameter	CPLR* (lb/acre)	Site Life (years)
Arsenic	36.6	327
Cadmium	34.8	>1000
Copper	1339.9	303
Lead	267.9	807
Mercury	15.2	1110
Molybdenum**	Not Available	Not Available
Nickel	375.1	839
Selenium	89.3	930
Zinc	2500.4	115

* - source: Ohio EPA Land Application of Biosolids Manual; September 24, 1998; Section V.A.2; Table 1

** - The CPLR for molybdenum is not addressed by 40 CFR 503 as of the date of this Biosolids Management Plan. Any levels promulgated under 40 CFR 503 will be met one way or another.

The above table indicates that, under current federal and state guidelines and regulations, biosolids from the MRWWTP could be continuously applied to a site at the rate of seven (7) dry tons per year for more than 100 years before achieving the CPLR of any listed pollutant.

C) Conclusion

Analysis of the loading rates available through consideration of dry weight per acre, nutrient levels, and metals limitations reveals that the most restrictive application rate limits should be calculated using the nitrogen data. Periodic evaluations of the biosolids recycling operation at the MRWWTP will be conducted to insure that compliance is maintained with the requirement to limit biosolids applications to the most restrictive application rate.

V) SITE SELECTION and INSPECTION

A) Site Selection

Written authorization will be obtained from the Ohio EPA for the use of each new biosolids recycling site prior to application. Applications for site authorization will be made using the Biosolids Site Authorization forms as found in Appendix A. Applications may be made by the generator, applier, or their authorized agent(s). In determining the suitability of a site for biosolids application, a number of factors will be considered, including:

1) Slope – Agricultural land with slopes in excess of 12% will not be accepted for land application. Sites with slopes between 6% and 12% will be utilized for biosolids recycling as long as it is anticipated that the material can be incorporated within 24 hours of being applied or, if incorporation is not feasible (e.g. – frozen ground), the soil surface is at least 80% covered by either rooted or residual vegetative materials.

2) Runoff Management – It is the contention of this facility that runoff of liquid in the biosolids and precipitation falling on the biosolids application site can be effectively minimized by making use of one or both of the following management procedures: a) incorporation of applied biosolids materials within 24 hours of being spread; and/or

b) avoiding areas with excessive slope (see Section V.A.1 for additional information concerning this facility's slope management policy).

3) Soil Characteristics – Various physical properties of the soil will be evaluated during the site selection process. The parameters to be assessed will be gleaned from the most current soil test report forms provided by the biosolids application contractor or the recycling site administrator. Factors that will be considered include:
   a) pH - The background soil pH will be at least 5.5 S.U.
   b) Metals – Pre-application analysis for regulated soil metals will be performed if biosolids from this facility fail to meet the ceiling concentrations specified at 40 CFR 503.13(b)(1). As long as the metals concentration in the MRWWTP biosolids remain below the ceiling concentrations, no pre- or post-application testing for soil metals is contemplated.
   c) Depth to Bedrock – Biosolids will not be applied to areas where the depth to bedrock is less than three feet. Determinations of bedrock depth will be made using information provided by the appropriate soil survey for the proposed recycling area as published by the United States Department of Agriculture, Soil Conservation Service.

B) Site Inspection

Written application for each proposed biosolids recycling site will be obtained from Ohio EPA prior to application. The Biosolids Site Authorization packet, as presented in Appendix A will be submitted to the Northwest District office of the OEPA.

VI) METHOD OF OPERATION

A) Storage

1) Generating Facility – Biosolids produced at the MRWWTP will be stored on-site until the advent of favorable weather and soil conditions permits their removal to approved recycling locations. The storage location at the MRWWTP consists of two concrete pads that provide provisions for leachate and runoff collection. These pads provide adequate storage for approximately one hundred twenty (120) days of biosolids production. As a last resort, and with the approval of the OEPA Division of Solid Waste and an approved facility, it might be possible to have this facility's biosolids removed to a sanitary landfill.

2) Recycling Site – Although subject to alteration due to changes in technology or a new biosolids recycling contractor, the operating methodology of the current contractor involves the surface deposition of materials at the recycling site by the transport vehicles. It is our intention that all biosolids removed to a recycling site will be spread within 24-hours of being deposited but even the best laid plans can go awry with the advent of unfavorable weather conditions, mechanical malfunctions, or some other development that would preclude timely spreading. In the event of the development of conditions that would result in the cessation of biosolids spreading, loading and hauling of additional biosolids to that site will be immediately halted. The biosolids that cannot be spread on the day that they are hauled to a site will be stored at the site and spread at the earliest possible opportunity. No additional biosolids will be removed to the site until conditions permit the spreading of biosolids previously transported to the site.

B) Transportation

With the equipment used by the current biosolids recycling contractor, transfer of material from the storage area of the biosolids generator to the recycling site occurs in semi-trailer dump body trucks equipped with watertight doors and covered with canvas tarpaulins.

C) Spreading and Incorporation

Current operating procedure utilizes self-propelled or tractor pulled slinger type spreading equipment to provide uniform distribution of the biosolids over the soil surface. Incorporation of applied biosolids from this facility is mandated by OEPA. MRWWTP policy requires that biosolids be incorporated within 24 hours of being spread. However, unfavorable weather conditions and mechanical malfunctions could prevent timely incorporation. In the event that unforeseen circumstances result in the development of conditions that indicate that the incorporation of biosolids may be delayed for more than 24 hours, additional spreading of biosolids will be terminated. The biosolids that cannot be incorporated within 24 hours of the time they are spread at a site will be incorporated at the earliest possible opportunity.

D) Hours of Operation

All biosolids application activities will generally be conducted during daylight hours on days when the MRWWTP is fully staffed. Weekend, holiday, and nighttime work will not usually be permitted. However, there may well be situations when minor deviations from this policy would be prudent. One possible scenario would be that there is a small quantity of biosolids at the recycling site that needs to be spread and/or incorporated, nightfall is rapidly approaching, and the development of adverse weather is imminent. Rather than cease the recycling activities with the advent of darkness and risk leaving a stockpile of unspread material on the site for an extended period due to the deterioration of field conditions, permission may be granted to continue the recycling operation for a short time after dusk in order to ensure that the material is spread and/or incorporated in a timely fashion. Such occurrences will be minimal and permitted only when the it is believed that the benefits of such after-hours operations significantly outweigh the perceived consequences of activity termination.

E) Isolation Distances

Biosolids will be applied to meet the following isolation distances which are designed to minimize the chance for nuisance and pollution conditions to develop:

Parameter	**Feet (meters)**
Neighbor Occupied Building	100 (30)
Wells – Public/Private	300 (91)
Surface Waters of the State	33 (10)
Springs	300 (91)

F) Nuisances

Biosolids recycling is essentially an agricultural operation. However, the spreading of municipal wastewater biosolids is not afforded the same protection against nuisance issues as is general agriculture. Conscientious efforts will be made to minimize the development of conditions that could be construed to be nuisances. These would include the timely removal of material dragged out onto public right-of-ways by the transport vehicles, efforts to ensure that established traffic patterns are maintained, and the minimization of particulate suspension.

VII) MONITORING, REPORTING, and RECORD KEEPING

A) Biosolids Monitoring

At the present time, the MRWWTP produces 2200 dry tons of biosolids annually. In accordance with Table 1 of 40 CFR 503.16(a)(1) and Part I.B.1 of our NPDES permit, we conduct (as defined by Part III.1 of our NPDES permit) monitoring for the parameters listed in Section III.C above. Nutrient analysis of our biosolids is conducted bi- monthly for total kjeldahl nitrogen, ammonia nitrogen, and phosphorus. Monitoring of the total dry weight of biosolids produced and the total and volatile solids content (as expressed in percent) is conducted each day that biosolids are processed.

Monitoring to ensure that this facility's biosolids meet the pathogen reduction requirements of 40 CFR 503.32(b) and vector attraction reduction requirements of 40 CFR 503.33(b) is conducted at least monthly. Monitoring for potassium & all NPDES required parameter metals, occurs bi-monthly. A complete priority pollutant scan is run annually to satisfy the requirements of Part II.AA.7of our NPDES permit.

B) Reporting

1) Monthly Report – The self-monitoring report in Appendix B will be submitted monthly to the OEPA District Office.
2) Site Status Report – The self-monitoring report in Appendix C will be submitted to the OEPA District Office within 90 days after the annual biosolids application on each field has been completed.
3) Annual Report – In accordance with Part II.T of the MRWWTP's NPDES permit, the following information shall be reported to the OEPA annually (by January 31) concerning the previous year's biosolids recycling activities:
    a) Dry tons of biosolids recycled.
    b) Method(s) of recycling.
    c) Summary of all analyses made on the biosolids, including any priority pollutant scans that may have been performed.
    d) Applicable certification statements.
    e) Description of how the requirements of 40 CFR 503.32 and 33 were achieved.
    f) The information mandated by 40 CFR 503.17(a)(5)(ii) for each site which, during the year, attained 90 percent or more of any of the cumulative pollutant loading rates in 40 CFR 503.13(b)(2).
    g) Description of any interference with the reuse or disposal of the biosolids over the past 12 months.
    h) Summary of complaints received relating to the recycling of biosolids over the past 12 months.

C) Recordkeeping

1) Preparer – The MRWWTP will maintain files pertaining to the following items for a period of not less than five years:
   a) Results of chemical analyses for parameters listed in Section VIII.A.
   b) Certification statements as mandated by 40 CFR 503.17(a)(4)(i)(B).
   c) Description of how the Class B pathogen requirements in 40CFR 503.32(b) are met.
   d) Description of how the vector attraction reduction requirements of 40 CFR 503.33(b)(1) thorough (b)(8) are achieved.
   e) Names and addresses of organizations/persons receiving biosolids and the quantity received.

2) Applier – The applier of biosolids produced by the MRWWTP will maintain files pertaining to the following items for a period of not less than five years (see Section VII.C.2.d.viii below for exceptions):
   a) Certification of proper application (including application rate).
   b) Description of how the management practices in 40 CFR 503.14 are met for each site on which biosolids were applied.
   c) Description of how the site restrictions in 40 CFR 503.32(b)(5) are met for each site on which biosolids were applied.
   d) If cumulative limits apply (40 CFR 503.13(b)(2)):
      i) Applicable certification statements specified by 40 CFR 503.17(a)(5)(F), (H), (J), and (L)
      ii) Description of site location and size; date and time of application.
      iii) Record of cumulative amount of metals, nutrients and mass of biosolids applied.
      iv) Description of how the requirements to obtain information in 40 CFR 50312.(e)(2) are met.
      v) Description of how application information was obtained.
      vi) Description of how the management practices in 40 CFR 503.14 are met for each site.
      vii) Description of how the site restrictions in 40 CFR 503.32(b)(5) are met for each site.
      viii) The information required by Section VII.C.2.d.ii, iii, and iv and 40 CFR 503.17(a)(5)(F) shall be retained indefinitely.

APPENDIX A

1. See Ohio EPA website for all current forms

APPENDIX B

See Ohio EPA Website for current forms.

APPENDIX C

MAUMEE RIVER WASTEWATER TREATMENT PLANT

SITE STATUS REPORT

OEPA Site No. _____ MRWWTP Site _____ Latest Soil Analysis _____

Operator _____ County/Township _____ Section Number _____

Date Prepared _____ Applicator _____ pH _____

Biosolids Source _____ C.E.C. _____ File Name _____

Biosolids Applications month/day/year		Biosolids Applied (dry tons)				Metals Applied (lbs/acre)				
Start	Finish	Weight	Acres	Dry Tons/Acre	Biosolids Analysis	Arsenic	Cadmium	Chromium	Copper	Lead
Total Applied to Soil to Date with Biosolids										

Biosolids Applications month/day/year		Biosolids Applied (dry tons)			Metals Applied (lbs/acre)				
Start	Finish	Weight	Acres	Dry Tons/Acre	Mercury	Molybdenum	Nickel	Selenium	Zinc
Total Applied to Soil to Date with Biosolids									

A. Attach log of any complaints received. _____
B. Attach soil and tissue analysis (if necessary).
C. Status of Field: complete "Cumulative Pollutant Loading Rate Worksheet" (OEPA Land Application of Sludge Manual; June 25, 1996; p. 47) if sludge is subject to cumulative pollutant loading limits.

1) Exceeding Cumulative Limit? ___ ___
2) At or above 90% of cumulative limit? ___ ___

I certify under penalty of law that the above information is true , accurate, and complete and I'm aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.

Date Report Completed	Signature of Reporter	Title of Reporter

(kg/Ha)(1.12)=lbs/Acre

The following information is provided in accordance with 40 CFR 503.12(d) and (f):

Part I - To Be Completed by **PREPARERS** of Biosolids

A. Parameter Concentrations

Parameter	Concentration (mg/kg)	Permissible Monthly Average Concentration (mg/kg) 40 CFR 503.13(b)(3)	Ceiling Concentration* (mg/kg) 40CFR 503.13(b)(1)
Arsenic		41	75
Cadmium		39	85
Copper		1500	4300
Lead		300	840
Mercury		17	57
Molybdenum		N/A	75
Nickel		420	420
Selenium		100	100
Zinc		2800	7500
TKN **		N/A	N/A
NH_4-N		N/A	N/A
NO_3-N		N/A	N/A

* - Biosolids may not be land applied if any pollutant concentration in any sample exceeds these values.
** - Information documenting compliance with §503.14(d) [agronomic rate] is supplied separately.

Biosolids Analysis _____

B. Pathogen Reduction (40 CFR 503.32) - Please indicate the level achieved

☐ Class A ☐ Class B

C. Vector Attraction Reduction (40 CFR 503.33)

Option Performed ____

D. Certification

I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or the persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. Name and Official Title (type or print)	B. Area Code and Telephone Number
C. Signature	D. Date Signed

The following information is provided in accordance with 40 CFR 503.12(h):

Part I - To Be Completed by **LAND APPLIERS** of Biosolids

Pathogen Reduction - Biosolids that meet the criteria of a Class B material are subject to certain site restrictions (40 CFR 503.32(b)(5):

(1) Food crops with harvested parts that touch the biosolids/soil mixture cannot be harvested before the end of the following waiting period:
   a) If harvested parts are totally above the soil surface - 14 months;
   b) If harvested parts are below the soil surface and the biosolids remain on top of the soil for 4 months or longer before the field was plowed - 20 months;
   c) If harvested parts are below the soil surface and the biosolids are incorporated into the soil within 4 months of being applied - 36 months.

(2) Food crops that do not touch the biosolids/soil mixture, feed crops, and fiber crops cannot be harvested for 30 days after sewage sludge application.

(3) Animals cannot be grazed on the land for 30 days after application of the biosolids.

(4) If harvested turf is used for a lawn or other purpose where there is a high potential for public exposure, then the turf cannot be harvested for 1 year after the application of the biosolids.

(5) Public access to land with a high potential for public exposure (e.g. - parks, golf courses, playgrounds) will be restricted for 1 year after the application of the biosolids.

(6) Public access to land with a low potential for public exposure (e.g. - private property) will be restricted for 30 days after the application of the biosolids.

CERTIFICATION

I certify, under penalty of law, that; (a) the landowner/leaseholder has been provided with notice and necessary information regarding the requirement to implement the site restrictions in §503.32(b)(5) and; (b) the management practices in §503.14 have been met. These notifications and determinations have been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the requirements for applicable site restriction notification and management practices have been met. I am aware that there are significant penalties for false certification including fine and imprisonment.

A. Name (type or print)	B. Area Code and Telephone Number
C. Signature	D. Date Signed

The Maumee River Wastewater Treatment Plant produces a biosolids product that meets the criteria of a Class B material. Fields receiving this product are subject to certain site restrictions:

(1) Food crops (i.e. - crops grown for direct human consumption) with harvested parts that touch the biosolids/soil mixture cannot be harvested before the end of the following waiting period:
   a) If harvested parts are totally above the soil surface (e.g. - tomatoes) - 14 months;
   b) If harvested parts are below the soil surface (e.g. - potatoes) and the biosolids remain on top of the soil for 4 months or longer before the field was plowed - 20 months;
   c) If harvested parts are below the soil surface and the biosolids are incorporated into the soil within 4 months of being applied - 36 months.

(2) Food crops that do not touch the biosolids/soil mixture (e.g. - sweet corn), feed crops (i.e. - crops grown for consumption by animals), and fiber crops cannot be harvested for 30 days after biosolids application.

(3) Animals cannot be grazed on the land for 30 days after application of the biosolids.

(4) If harvested turf is used for a lawn or other purpose where there is a high potential for public exposure, then the turf cannot be harvested for 1 year after the application of the biosolids.

(5) Public access to land with a high potential for public exposure (e.g. - parks, golf courses, playgrounds) will be restricted for 1 year after the application of the biosolids.

(6) Access of the general public to land with a low potential for public exposure (e.g. - private property) will be restricted for 30 days after the application of the biosolids.

APPENDIX D

OHIO ENVIRONMENTAL PROTECTION AGENCY
Division of Water Pollution Control

Pretreatment Priority Pollutant Reporting Form

POTW: Maumee River WWTP

LABORATORY: Jones & Henry Laboratories, Inc.

SAMPLING:

	DATE	TIME
INFLUENT	03/06/12, 03/07/12	0913, 0700
EFFLUENT	03/06/12, 03/07/12	1503, 0700
SLUDGE 1	03/06/12	1207, 1704
SLUDGE 2		

SAMPLING LOCATION:

INFLUENT	
EFFLUENT	
SLUDGE 1	Sludge Cake
SLUDGE 2	

TYPE OF SAMPLE: (be specific)

HEAVY METALS

ORGANICS
Volatiles:

Extractables:

OTHER:

PERCENT SLUDGE SOLIDS: SLUDGE 1 29.7 SLUDGE 2

COMMENTS: The following compounds were analyzed by EPA Method 624:
1,2-DICHLOROBENZENE
1,3-DICHLOROBENZENE
1,4-DICHLOROBENZENE
Per Julia Zhang, OEPA, they will continue to be reported under the Base Neutral section of form 4221 until an updated form is available.

POTW PRETREATMENT CONTACT:

JASON COLLINS PRETREATMENT COORDINATOR
Name & title (please print)

Jason Collins
Signature

4/27/12
Date

FORM 4221

CAS #	POLLUTANT	INFLUENT ug/l	EFFLUENT ug/l	SLUDGE (1) mg/kg dry	SLUDGE (2) mg/kg dry
Heavy Metals (13)					
7440-36-0	Antimony	AA (8)	AA (8)	AA (5.0)	( )
7440-38-2	Arsenic	AA (8)	AA (8)	12.1 (2.0)	( )
7440-41-7	Beryllium	AA (1)	AA (1)	AA (1.0)	( )
7440-43-9	Cadmium	AA (1)	AA (1)	1.0 (1.0)	( )
7440-47-3	Chromium	9 (4)	AA (4)	83.4 (2.0)	( )
7440-50-8	Copper	22 (4)	AA (4)	253 (2.0)	( )
7439-92-1	Lead	AA (5)	AA (5)	17.7 (2.0)	( )
7439-97-6	Mercury	AA (0.2)	AA (0.2)	0.78 (0.50)	( )
7440-02-0	Nickel	4 (4)	AA (4)	26.1 (2.0)	( )
7782-49-2	Selenium	AA (8)	AA (8)	7.3 (2.0)	( )
7440-22-4	Silver	AA (4)	AA (4)	7.0 (2.0)	( )
7440-28-0	Thallium	AA (10)	AA (10)	AA (5.0)	( )
7440-66-6	Zinc	522 (10)	33 (10)	1190 (2.0)	( )
Volatiles (28)					
107-02-8	Acrolein	AA (25)	AA (25)	AA (0.42)	( )
107-13-1	Acrylonitrile	AA (2)	AA (2)	AA (0.04)	( )
71-43-2	Benzene	AA (1)	AA (1)	AA (0.02)	( )
75-25-2	Bromoform	AA (1)	AA (1)	AA (0.02)	( )
56-23-5	Carbon tetrachloride	AA (1)	AA (1)	AA (0.02)	( )
108-90-7	Chlorobenzene	AA (1)	AA (1)	0.08 (0.02)	( )
124-48-1	Chlorodibromomethane	AA (1)	AA (1)	AA (0.04)	( )
75-00-3	Chloroethane	AA (2)	AA (2)	AA (0.04)	( )
110-75-8	2-Chloroethyl vinyl ether	AA (2)	AA (2)	AA (0.04)	( )
67-66-3	Chloroform	2.0 (1)	AA (1)	AA (0.02)	( )
75-27-4	Dichlorobromomethane	AA (1)	AA (1)	AA (0.02)	( )
75-34-3	1,1-Dichloroethane	AA (1)	AA (1)	AA (0.02)	( )
107-06-2	1,2-Dichloroethane	AA (1)	AA (1)	AA (0.02)	( )
75-35-4	1,1-Dichloroethylene	AA (1)	AA (1)	AA (0.02)	( )
78-87-5	1,2-Dichloropropane	AA (1)	AA (1)	AA (0.02)	( )
542-75-6	1,3-Dichloropropylene	AA (1)	AA (1)	AA (0.02)	( )
100-41-4	Ethylbenzene	AA (1)	AA (1)	0.12 (0.02)	( )
74-83-9	Methyl bromide	AA (2)	AA (2)	AA (0.04)	( )
78-87-3	Methyl chloride	AA (2)	AA (1)	AA (0.04)	( )
75-09-2	Methylene chloride	AA (2)	AA (2)	0.06 (0.04)	( )
79-34-5	1,1,2,2-Tetrachloroethane	AA (1)	AA (1)	AA (0.02)	( )
127-18-4	Tetrachloroethylene	AA (1)	AA (1)	AA (0.02)	( )
108-88-3	Toluene	1.7 (1)	AA (1)	0.38 (0.02)	( )
156-60-5	1,2-trans-Dichloroethylene	AA (1)	AA (1)	AA (0.02)	( )
71-55-6	1,1,1-Trichloroethane	AA (1)	AA (1)	AA (0.02)	( )
79-00-5	1,1,2-Trichloroethane	AA (1)	AA (1)	AA (0.02)	( )
79-01-6	Trichloroethylene	AA (1)	AA (1)	AA (0.02)	( )
75-01-4	Vinyl chloride	AA (1)	AA (1)	AA (0.02)	( )
Base Neutrals (46)					
83-32-9	Acenaphthene	AA (5)	AA (5)	AA (1.8)	( )
208-96-8	Acenaphthylene	AA (5)	AA (5)	AA (1.8)	( )
120-12-7	Anthracene	AA (5)	AA (5)	AA (1.8)	( )
92-87-5	Benzidine	AA (5)	AA (5)	AA (1.8)	( )
56-55-3	Benzo(a)anthracene	AA (5)	AA (5)	AA (1.8)	( )
50-32-8	Benzo(a)pyrene	AA (5)	AA (5)	AA (1.8)	( )
205-99-2	3,4-Benzofluoranthene	AA (5)	AA (5)	AA (1.8)	( )

CAS #	POLLUTANT	INFLUENT ug/l		EFFLUENT ug/l		SLUDGE (1) mg/kg dry		SLUDGE (2) mg/kg dry	
Base Neutrals (cont.)									
191-24-2	Benzo(ghi)perylene	AA	(5)	AA	(5)	AA	(1.8)		( )
207-08-9	Benzo(k)fluoranthene	AA	(5)	AA	(5)	AA	(1.8)		( )
111-91-1	Bis(2-chloroethoxy)methane	AA	(5)	AA	(5)	AA	(1.8)		( )
111-44-4	Bis(2-chloroethyl)ether	AA	(5)	AA	(5)	AA	(1.8)		( )
108-60-1	Bis(chloroisopropyl)ether	AA	(5)	AA	(5)	AA	(1.8)		( )
117-81-7	Bis(2-ethylhexyl)phthalate	6.9	(5)	AA	(5)	25	(1.8)		( )
101-55-3	4-Bromophenyl phenyl ether	AA	(5)	AA	(5)	AA	(1.8)		( )
85-68-7	Butyl benzyl phthalate	AA	(5)	AA	(5)	AA	(1.8)		( )
91-58-7	2-Chloronapthalene	AA	(5)	AA	(5)	AA	(1.8)		( )
7005-72-3	4-Chlorophenyl phenyl ether	AA	(5)	AA	(5)	AA	(1.8)		( )
218-01-9	Chrysene	AA	(5)	AA	(5)	AA	(1.8)		( )
53-70-3	Dibenzo(a,h)anthracene	AA	(5)	AA	(5)	AA	(1.8)		( )
95-50-1	1,2-Dichlorobenzene	AA	(1)	AA	(1)	AA	(0.02)		( )
541-73-1	1,3-Dichlorobenzene	AA	(1)	AA	(1)	AA	(0.02)		( )
106-46-7	1,4-Dichlorobenzene	AA	(1)	AA	(1)	0.03	(0.02)		( )
91-94-1	3,3'-dichlorobenzidine	AA	(5)	AA	(5)	AA	(1.8)		( )
84-66-2	Diethyl phthalate	AA	(5)	AA	(5)	AA	(1.8)		( )
131-11-3	Dimethyl phthalate	AA	(5)	AA	(5)	AA	(1.8)		( )
84-74-2	Di-n-butyl phthalate	AA	(5)	AA	(5)	AA	(1.8)		( )
121-14-2	2,4-Dinitrotoluene	AA	(5)	AA	(5)	AA	(1.8)		( )
606-20-2	2,6-Dinitrotoluene	AA	(5)	AA	(5)	AA	(1.8)		( )
117-84-0	Di-n-octyl phthalate	AA	(5)	AA	(5)	AA	(1.8)		( )
122-66-7	1,2-Diphenylhydrazine	AA	(5)	AA	(5)	AA	(1.8)		( )
206-44-0	Fluoranthene	AA	(5)	AA	(5)	AA	(1.8)		( )
86-73-7	Fluorene	AA	(5)	AA	(5)	AA	(1.8)		( )
118-74-1	Hexachlorobenzene	AA	(5)	AA	(5)	AA	(1.8)		( )
87-68-3	Hexachlorobutadiene	AA	(5)	AA	(5)	AA	(1.8)		( )
77-47-4	Hexa-chlorocyclopentadiene	AA	(5)	AA	(5)	AA	(1.8)		( )
67-72-1	Hexachloroethane	AA	(5)	AA	(5)	AA	(1.8)		( )
193-39-5	Indeno(1,2,3-cd)pyrene	AA	(5)	AA	(5)	AA	(1.8)		( )
78-59-1	Isophorone	AA	(5)	AA	(5)	AA	(1.8)		( )
91-20-3	Naphthalene	AA	(5)	AA	(5)	AA	(1.8)		( )
98-95-3	Nitrobenzene	AA	(5)	AA	(5)	AA	(1.8)		( )
62-75-9	N-nitrosodimethylamine	AA	(5)	AA	(5)	AA	(1.8)		( )
621-64-7	N-nitrosodi-n-propylamine	AA	(5)	AA	(5)	AA	(1.8)		( )
86-30-6	N-nitrosodiphenylamine	AA	(5)	AA	(5)	AA	(1.8)		( )
85-01-9	Phenanthrene	AA	(5)	AA	(5)	AA	(1.8)		( )
129-00-0	Pyrene	AA	(5)	AA	(5)	AA	(1.8)		( )
120-82-1	1,2,4-Trichlorobenzene	AA	(5)	AA	(5)	AA	(1.8)		( )
Acids (11)									
95-57-8	2-Chlorophenol	AA	(5)	AA	(5)	AA	(1.8)		( )
120-83-2	2, 4-Dichlorophenol	AA	(5)	AA	(5)	AA	(1.8)		( )
105-67-9	2, 4-Dimethylphenol	AA	(5)	AA	(5)	AA	(1.8)		( )
534-52-1	4,6-Dinitro-o-cresol	AA	(5)	AA	(5)	AA	(1.8)		( )
51-28-5	2,4-Dinitrophenol	AA	(5)	AA	(5)	AA	(1.8)		( )
88-75-5	2-Nitrophenol	AA	(5)	AA	(5)	AA	(1.8)		( )
100-02-7	4-Nitrophenol	AA	(5)	AA	(5)	AA	(1.8)		( )
59-50-7	p-Chloro-m-cresol	AA	(5)	AA	(5)	AA	(1.8)		( )
87-86-5	Pentachlorophenol	AA	(5)	AA	(5)	AA	(1.8)		( )
108-95-2	Phenol	AA	(5)	AA	(5)	6.3	(1.8)		( )
88-06-2	2,4,6-Trichlorophenol	AA	(5)	AA	(5)	AA	(1.8)		( )

CAS #	POLLUTANT	INFLUENT ug/l		EFFLUENT ug/l		SLUDGE (1) mg/kg dry		SLUDGE (2) mg/kg dry	
Pesticides (26)									
309-00-2	Aldrin	AA	(5)	AA	(5)	AA	(1.8)		( )
319-84-6	Alpha-BHC	AA	(5)	AA	(5)	AA	(1.8)		( )
319-85-7	Beta-BHC	AA	(5)	AA	(5)	AA	(1.8)		( )
319-86-8	Delta-BHC	AA	(5)	AA	(5)	AA	(1.8)		( )
58-89-9	Gamma-BHC	AA	(5)	AA	(5)	AA	(1.8)		( )
57-74-9	Chlordane	AA	(10)	AA	(10)	AA	(3.7)		( )
50-29-3	4,4-DDT	AA	(5)	AA	(5)	AA	(1.8)		( )
72-55-9	4,4-DDE	AA	(5)	AA	(5)	AA	(1.8)		( )
72-54-8	4,4-DDD	AA	(5)	AA	(5)	AA	(1.8)		( )
60-57-1	Dieldrin	AA	(5)	AA	(5)	AA	(1.8)		( )
959-98-8	Alpha endosulfan	AA	(5)	AA	(5)	AA	(1.8)		( )
33213-65-9	Beta endosulfan	AA	(5)	AA	(5)	AA	(1.8)		( )
1031-07-8	Endosulfan sulfate	AA	(5)	AA	(5)	AA	(1.8)		( )
72-20-8	Endrin	AA	(5)	AA	(5)	AA	(1.8)		( )
7421-93-4	Endrin aldehyde	AA	(5)	AA	(5)	AA	(1.8)		( )
76-44-8	Heptachlor	AA	(5)	AA	(5)	AA	(1.8)		( )
1024-57-3	Heptachlor epoxide	AA	(5)	AA	(5)	AA	(1.8)		( )
53469-21-9	PCB-1242	AA	(10)	AA	(10)	AA	(3.7)		( )
11097-69-1	PCB-1254	AA	(10)	AA	(10)	AA	(3.7)		( )
11104-28-2	PCB-1221	AA	(10)	AA	(10)	AA	(3.7)		( )
11141-17-5	PCB-1232	AA	(10)	AA	(10)	AA	(3.7)		( )
12672-29-6	PCB-1248	AA	(10)	AA	(10)	AA	(3.7)		( )
11096-82-5	PCB-1260	AA	(10)	AA	(10)	AA	(3.7)		( )
12674-11-2	PCB-1016	AA	(10)	AA	(10)	AA	(3.7)		( )
8001-35-2	Toxaphene	AA	(10)	AA	(10)	AA	(3.7)		( )
1764-01-6	2,3,7,8-Tetrachloro-dibenzo-p-dioxin	AA	(10)	AA	(10)	AA	(3.7)		( )
Miscellaneous									
1332-21-4	Asbestos: (1)		( )		( )		( )		( )
	Chrysotile		( )		( )		( )		( )
	Amphibole		( )		( )		( )		( )
57-12-5	Cyanide, Total	28	(5)	5	(5)	2.3	(0.01)		( )

DATA SUBSTITUTION CODES

- AA Below detectable limit
- AB Analyical data lost
- AE Analytical data not valid-provide explanation
- AH Sample not taken-provide explanation
- AJ Above range of sampling equipment
- AP Laboratory accident
- AQ Sample too old to analyze
- AR Headspace in sample
- AS Broken/leaked in transit
- AT Improperly preserved
- AV Insufficient volume

AW Other-explain

(1) REPORT ONLY IF REQUIRED BY NPDES PERMIT(S), PART II, OTHER REQUIREMENTS.

Ten Most Prominent Peaks On Ion Plots:

INFLUENT	CAS #	POLLUTANT	CONCENTRATION ug/l
1.		Acetone	98
2.		Methylethylketone	9.1
3.		p-Isopropyltoluene	5.9
4.		Isopropyl alcohol	2
5.		3-Carene	1
6.		Limonene	10
7.		Decamethyl cyclopentasiloxane	8
8.			
9.			
10.			

EFFLUENT	CAS #	POLLUTANT	CONCENTRATION ug/l
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			

SLUDGE 1	CAS #	POLLUTANT	CONCENTRATION mg/kg dry
1.		Acetone	0.92
2.		Carbon Disulfide	0.055
3.		Methyl ethyl ketone	0.35
4.		m&p-Xylene	0.33
5.		o-Xylene	0.78
6.		1,3,5-Trimethylbenzene	0.018
7.		1,2,4-Trimethylbenzene	0.067
8.		p-Isopropyltoluene	0.10
9.		Methanethiol	0.1
10.		Ethyl dimethyl benzene isomers	0.4

SLUDGE 2	CAS #	POLLUTANT	CONCENTRATION mg/kg dry
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			

Ten Most Prominent Peaks On Ion Plots:

	INFLUENT CAS #	POLLUTANT	CONCENTRATION ug/l
1.		Caffeine	30
2.		2-Methyl-2-Propylamine	10
3.		cis-9-Octyldecenoic acid, Methyl ester	1000
4.		Stearic acid	600
5.		Cholesterol	600
6.		Unknown Acid #1	400
7.		Unknown Acid #2	500
8.		Unknown #1	300
9.		Unknown #2	200
10.		Unknown #3	300

	EFFLUENT CAS #	POLLUTANT	CONCENTRATION ug/l
1.		Unknown #1	10
2.		Unknown #2	9
3.		Unknown #3	2
4.			
5.			
6.			
7.			
8.			
9.			
10.			

	SLUDGE 1 CAS #	POLLUTANT	CONCENTRATION mg/kg dry
1.		m-Aminophenylavetylene	7
2.		Nonyl phenol	4
3.		2-Nonyl phenol	20
4.		4-Nonyl phenol	10
5.		5-Fluoroindole	40
6.		Galoxolide	30
7.		Unknown Phthalate ester	60
8.		9-Bromofluorene	500
9.		Cholesterol	6000
10.		Unknown #1	6000

	SLUDGE 2 CAS #	POLLUTANT	CONCENTRATION mg/kg dry
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			

ATTACHMENT B –FORMS/AFFIDAVITS

DELINQUENT PERSONAL PROPERTY TAX STATEMENT
(O.R.C. Section 5719.042)

THIS FORM MUST BE COMPLETED IN ITS ENTIRETY AND NOTARIZED

I _____ (NAME), _____ (TITLE), _____ (NAME OF COMPANY)

affirm that at the time that I submitted the bid for _____ (BID TITLE)

to the Board of Lucas County Commissioners on _____ (DATE) that

_____ (NAME OF COMPANY) was / was not (CIRCLE ONE) charged with delinquent

Personal Property Taxes by the Lucas County Auditor.

(If Personal Property Taxes are delinquent, complete the following section)

The amount of delinquent Personal Property Taxes due Lucas County is

_____ (AMOUNT) and unpaid penalties and interest are _____ (AMOUNT).

_____
(SIGNATURE)

_____
(COMPANY)

_____
(DATE)

Sworn to and subscribed before me this _____day of,_____ 20___.

(SEAL) _____
(NOTARY)

My Commission Expires:

(Date) _____

NON-DISCRIMINATION AND EQUAL EMPLOYMENT OPPORTUNITY AFFIDAVIT

STATE OF _____

SS

COUNTY OF _____

_____ being first duly sworn, deposes and says that
(Name)

he/she is _____ of _____ the party
(Title) (Company)

that made the foregoing proposal; that such party as bidder does not and shall not discriminate against any employee or applicant for employment because of race, religion, color, sex or national origin. If awarded the bid and contract under this proposal, said party shall take affirmative action to insure that applicants are employed and that employees are treated, during employment, without regard to their race, religion, color, sex or national origin. If successful as the lowest and best bidder under the foregoing proposal this party shall post non-discrimination notices in conspicuous places available to employees and applicants for employment setting forth the provision of this affidavit.

Furthermore, said party agrees to abide by the assurances found in Section 153.59 of the Ohio Revised Code in the Contract Provisions with the Owner if selected as the successful bidder by the owner.

_____
(Signature)

_____
(Affiant)

_____
(Company/Corporations)

_____
(Address)

_____
(City/State/Zip Code)

Sworn to and subscribed before me this _____ day of _____, 20___.

(Seal) _____
(Notary)

My Commission Expires:

_____
(Date)

NON-COLLUSION AFFIDAVIT

STATE OF OHIO,

COUNTY OF LUCAS, SS:

_____ being first duly SWORN, deposes and says that he is the_____or authorized representative of _____ or is the party submitting this bid; that such bid is genuine and not collusive or sham; that said bidder has not colluded, conspired, connived, or agreed, directly or indirectly, with any other bidder or person, to submit a sham bid, or refrain from bidding; has not in any manner, directly or indirectly sought by agreement or collusion, or communication or conference, with any person, to fix the bid price of affiant or any other bidder, to fix any overhead, profit or cost element of said bid price, or of that of any other bidder; to secure any advantage against the County of Lucas or any person or persons interested in the proposed contract; that all statements contained in said proposal of bid are true and that, such bidder has not, directly or indirectly submitted this bid, or the contents thereof, or divulged information or data relative thereto to any other potential bidder. Further, Affiant affirms that no county employee has any financial interest in this company or the bid being submitted.

_____
(Affiant Signature)

_____
(Affiant Title)

SWORN to before me and subscribed in my presence this _____ day of _____, 20_____.
(Date) (Month) (Year)

_____
(Notary Public)

(SEAL)

My Commission Expires

_____
(Date)

NO FINDINGS FOR RECOVERY AFFIDAVIT

THIS FORM MUST BE COMPLETED IN ITS ENTIRETY AND NOTARIZED

I _____ (NAME), _____ (TITLE), _____ (NAME OF COMPANY)

affirm that at the time that I submitted the bid for _____ (BID TITLE)

to the Board of Lucas County Commissioners on _____ (DATE) that

_____ (NAME OF COMPANY) has / has no (CIRCLE ONE) unresolved finding for recovery from the State Auditor per Ohio Revised Code Section 9.24.

(If there is unresolved finding for recovery from the State Auditor , complete the following section)

The amount of unresolved finding for recovery due the State Auditor is _____ (AMOUNT) and unpaid penalties and interest are _____ (AMOUNT).

_____
(SIGNATURE)

_____
(COMPANY)

_____
(DATE)

Sworn to and subscribed before me this _____day of,_____ 20___.

(SEAL) _____
(NOTARY)

My Commission Expires:

_____

COMPLIANCE AFFIDAVIT FOR BUSINESSES

THIS FORM MUST BE COMPLETED IN ITS ENTIRETY BY THE BIDDER AND NOTARIZED

STATE OF OHIO }
}**ss:**
COUNTY OF LUCAS }

_____, being first duly sworn, deposes and says that
(Authorized Officer)
he/she is _____ of _____
(Title) (Company Name)
the party making the foregoing proposal or bid; that according to his/her knowledge, based upon company records the following individuals have a twenty-five (25%) percent or greater vested interest in _____.
(Company Name)

Name	**Child Support Case/Order No:**	**Social Security Number:**

Please check if applicable: _____ There are no individuals with twenty-five percent (25%) or greater vested interest in _____.
(Company Name)

_____
(signature)

Affiant:_____

Sworn to and subscribed in my presence this _____ day of _____, 20____.

_____
(Notary Public)

BEST BID CRITERIA FORM

This form must be completed in its entirety, and submitted with the Bid and all other documents required at the time of the Bid or response to request for proposal.

Name of Project (as identified in the "Request for Proposals"):

_____

Submitted by: _____
(Name of Contractor)

_____
(Address)

_____

1. Please explain the experience Bidder has on projects of the nature for which Bids were solicited.

_____

_____

_____

2. Please detail the continuity of the Bidder's workforce.

_____

_____

3. For construction projects, please describe the Bidder's participation in trade-relevant Department of Labor or State of Ohio approved apprenticeship programs, if such apprenticeship programs are available to the Bidder.

_____

_____

_____

4. Please describe the Bidder's familiarity with this specific project.

Has the Bidder reviewed the specifications (and if applicable, the drawings) for the project? ☐Yes ☐No

Has the Bidder visited the actual site of the project? ☐Yes ☐No

Has the Bidder reviewed all other applicable Contract Documents? ☐Yes ☐No

5. Does the Bidder provide any of the following for its employees?

OSHA-Compliant Safety Plan ☐Yes ☐No

EPA-Compliant Plans (if applicable) ☐Yes ☐No
(For asbestos & lead abatement)

5a. Has the Bidder been cited for any OSHA violations in the preceding six (6) months?
(If yes, please describe - add pages as needed) ☐Yes ☐No

Type of Violation (de minimis, other than serious, serious, or willful)	**Nature of Violation**

6. How many years has the Bidder been in the construction, professional or personal service business or the number of years in the commodities supply business? _____

7. For all construction projects completed by the Bidder in the preceding twenty-four (24) months, please complete the information in the table below (add additional pages if needed):

Project Identification	**Original Contract Price**	**Actual Final Cost**

7a. For all projects listed in #7, did the Bidder

Comply with all completion deadlines? ☐Yes ☐No

Provide timely response to "punch list" items and perform site clean-up in a timely manner? ☐Yes ☐No

File a maintenance bond in a timely manner? ☐Yes ☐No

Arrange for adequate bonding? ☐Yes ☐No

8. Does the Bidder comply with unemployment laws, workers compensation laws, federal & state Prevailing Wage laws, the Fair Labor Standards Act, local & state taxation laws and is the bidder a participant in the Drug Free Workplace Program for Small Employers (OAC 4123-17-58.1)?

☐Yes ☐No

The undersigned certifies under oath that the information provided herein is true and sufficiently complete so as not to be misleading:

Name of Bidder _____

By (Signature) _____

Title _____

Dated at _____ **this** _____**day of** _____**, 20**_____

Mr./Mrs./Ms. _____ **being duly sworn deposes and says that the information provided herein is true and sufficiently complete so as not to be misleading.**

Subscribed and sworn before me this _____ **day of** _____**, 20**__

Notary Public:_____

My Commission Expires: _____

LUCAS COUNTY AFFIDAVIT IN COMPLIANCE WITH O.R.C. SECTION 3517.13

Recent changes in Ohio law require Counties to obtain an additional affidavit from certain vendors regarding campaign contributions. With this affidavit you are simply affirming that you or your organization have not made campaign contributions to the Board of County Commissioners in an amount that exceeds the statutory maximum for organizations or individuals contracting with the County.

Please read the affidavit starting on page 2 for more specific details.

Additionally in order to ensure compliance with the law you must provide information regarding your business organization.

Is your organization a:

___ Publicly-traded for-profit corporation

___ Privately-held for-profit corporation

___ Not-for-profit corporation

___ Partnership

___ Sole proprietorship

Please list any members of your organization with a 20% or greater ownership interest:

_____

_____

_____

Please list any political action committees associated with your organization:

_____

_____

_____

STATE OF_____

COUNTY OF_____, ss:

Personally appeared before me the undersigned, as an individual or as a representative of

_____ for a contract for _____
(Name of Entity) (Type of Product or Service)

to be let by the Board of Commissioners, Lucas County, Ohio, who, being duly cautioned and sworn, makes the following statement with respect to prohibited activities constituting a conflict of interest or other violations under Ohio Revised Code Section 3517.13 (campaign contributions and reporting) and further states that the undersigned has the authority to make the following representation on behalf of himself or herself or of the business entity:

1. On behalf of the individual, partnership, other unincorporated business association, professional association organized under Chapter 1785 O.R.C. or estate or trust that all of the following persons, where applicable, are in compliance with 3517.13 (I)(1)[1]:

    a. the individual;
    b. each partner or owner of the partnership or other unincorporated business;
    c. each shareholder of the association;
    d. each administrator of the estate;
    e. each executor of the estate;
    f. each trustee of the trust;
    g. each spouse of any person identified in (a) through (f) of this section;
    h. each child seven years of age to seventeen years of age of any person identified in (a) through (f) of this section;
    i. any combination of persons identified in (a) through (f) of this section.

[1] O.R.C. § 3517.13 (I) (1) (a) provides: no agency or department of this state or any political subdivision shall award any contract for the purchase of goods costing more than ten thousand dollars or services costing more than ten thousand dollars to any individual, partnership or other unincorporated business, association, including, without limitation, a professional association organized under Chapter 1785 of the Revised Code, estate, or trust if *any person or entity* listed herein in paragraph 1, sub-paragraphs a-i above, *has made, as an individual*, within the previous twenty-four (24) months, *one or more contributions totaling in excess of one thousand dollars* to the holder of the public office having ultimate responsibility for the award of the contract or to the public officer's campaign committee.

2. On behalf of the individual, partnership, other unincorporated business association, professional association organized under Chapter 1785 O.R.C. or estate or trust that all of the following persons, where applicable, are in compliance with 3517.13 (I)(1) (b)[2]:
   a. the individual;
   b. each partner or owner of the partnership or other unincorporated business;
   c. each shareholder of the association;
   d. each administrator of the estate;
   e. each executor of the estate;
   f. each trustee of the trust;
   g. each spouse of any person identified in (a) through (f) of this section;
   h. each child seven years of age to seventeen years of age of any person identified in divisions (a) through (f) of this section;
   i. any political action committee affiliated with the partnership or other unincorporated business, association, estate, or trust.

3. On behalf of a corporation or business trust, except a professional association organized under Chapter 1785 O.R.C., that all of the following persons, where applicable, are in compliance with 3517.13 (J)(1)[3]:

   a. an owner of more than twenty per cent of the corporation or business trust;
   b. each spouse of an owner of more than twenty per cent of the corporation or business trust;
   c. each child seven years of age to seventeen years of age of an owner of more than twenty per cent of the corporation or business trust;
   d. any combination of persons identified in (a) through (c) of this section.

4. On behalf of a corporation or business trust, except a professional association organized under Chapter 1785 O.R.C., that all of the following persons, where applicable, are in compliance with 3517.13 (J)(2)[4]:

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[2] O.R.C. § 3517.13 (I) (1) (b) provides: no agency or department of this state or any political subdivision shall award any contract for the purchase of goods costing more than ten thousand dollars or services costing more than ten thousand dollars to any individual, partnership or other unincorporated business, association, including, without limitation, a professional association organized under Chapter 1785 of the Revised Code, estate, or trust if *any combination of the person or entity* listed herein in paragraph 2, subparagraphs a-i above, *has made* within the previous twenty-four (24) months, *one or more contributions totaling in excess of two thousand dollars* to the holder of the public office having ultimate responsibility for the award of the contract or to the public officer's campaign committee.

[3] O.R.C. § 3517.13 (J) (1) (a) provides: no agency or department of this state or any political subdivision shall award any contract for the purchase of goods costing more than ten thousand dollars or services costing more than ten thousand dollars to a corporation or business trust, except a professional association organized under Chapter 1785 of the Revised Code, *if any person listed herein in paragraph 3, sub-paragraphs a-d* has made, *as an individual*, within the previous twenty-four (24) months, taking into consideration only owners for all of that period, *one or more contributions totaling in excess of one thousand dollars* to the holder of the public office having ultimate responsibility for the award of the contract or to the public officer's campaign committee.

[4] O.R.C. § 3517.13 (J) (1) (b) provides: no agency or department of this state or any political subdivision

a. an owner of more than twenty per cent of the corporation or business trust;
b. each spouse of an owner of more than twenty per cent of the corporation or business trust;
c. each child seven years of age to seventeen years of age of an owner of more than twenty per cent of the corporation or business trust;
d. any political action committee affiliated with the corporation or business trust.

BIDDER:

SIGNATURE:_____

NAME: _____

TITLE: _____

DATE: _____

Sworn to before me and subscribed in my presence by the above named person this _____ day of _____, 20_____.

NOTARY PUBLIC: _____

My Commission Expires: _____

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shall award any contract for the purchase of goods costing more than ten thousand dollars or services costing more than ten thousand dollars to a corporation or business trust, except a professional association organized under Chapter 1785 of the Revised Code, *if any combination of the following has made*, within the previous twenty-four (24) months, taking into consideration only owners for all of that period, *one or more contributions totaling in excess of two thousand dollars* to the holder of the public office having ultimate responsibility for the award of the contract or to the public officer's campaign committee.

Lucas County Contract Transparency Purchasing Policy Disclosure

In the spirit of a more transparent Lucas County government, the Board of Lucas County Commissioners adopted Resolution #08-532 on May 13, 2008 requiring disclosure of political donations by certain individuals and/or political action committees related to the award of certain contracts. This policy applies to any contract at or above $10,000 that requires a vote of the Board.

Please list all contributions made by any owner of the company bidding on this contract. An owner is defined as owning more than twenty per cent of the corporation or business trust, a spouse of an owner of more than twenty per cent of the corporation or business trust, a child seven years of age through seventeen years of age of an owner of more than twenty per cent of the corporation or business trust or political action committees directly associated with this company within one year prior to the date of this award to any Lucas County elected officials. If no contributions have been made, please note "None."

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

LUCAS COUNTY SWEATFREE AFFIDAVIT

STATE OF _____

COUNTY OF _____, ss:

Personally appeared before me the undersigned, as an individual or as a representative of

_____for a contract for_____
(Name of Entity (Type of Product or Service)

to be let by the Board of Commissioners, Lucas County, Ohio, who, being duly cautioned and sworn, makes the following statement with respect to the Lucas County Sweatfree Procurement Policy and further states that the undersigned has the authority to make the following representation on behalf of himself or herself or of the business entity:

1. Name, physical address, phone number and contact persons for each production facility that will be involved in the production of goods or the provision of services.

_____

_____

_____

2. I have personal knowledge of the information contained in section 1 or I have obtained such information from any resale entity.

3. I understand my obligation to ensure that all applicable production facilities adhere to the sweatfree code of conduct as defined in Section IV of the Lucas County Sweatfree Procurement Policy.

4. I understand that if Lucas County, the State and Local Sweatfree Consortium, and/or an independent monitor find any of the production facilities listed above to be out of compliance with any of the provisions of Section IV of the Lucas County's Sweatfree Procurement Policy, and I fail to take all reasonable steps as specified by and/or its designee(s), I will be deemed out of compliance with the sweatfree code of conduct as defined in the Lucas County Sweatfree Procurement Policy.

5. I have furnished a copy of the sweatfree code of conduct as defined in Section IV of the Lucas County Sweatfree Procurement Policy to each production facility named in paragraph 1 and to each relevant subcontractor and I have instructed each subcontractor to furnish the code of conduct to each relevant production facility.

BIDDER:

SIGNATURE: _____

NAME: _____

TITLE: _____

DATE: _____

Sworn to before me and subscribed in my presence by the above named person this _____day of _____, 20_____.

NOTARY PUBLIC: _____

My Commission Expires:
_____

LUCAS COUNTY LIVING WAGE AFFIDAVIT

STATE OF _____

COUNTY OF _____, ss:

Personally appeared before me the undersigned, as an individual or as a representative of

_____for a contract/public incentive for
(Name of Entity)

for_____
(Type of Product, Service or public incentive)

to be awarded by the Board of Commissioners, Lucas County, Ohio, who, being duly cautioned and sworn, makes the following statement with respect to the Lucas County Living Wage Procurement Policy and further states that the undersigned has the authority to make the following representation on behalf of himself or herself or of the business entity:

1. I have personal knowledge of the information contained herein.

2. Number of employees. _____

3. Is the company/entity a non-profit? YES____ NO ____

4. Are employees paid a wage equivalent to at least 110% of the most recent federal poverty guidelines for a family of four, as defined by the Department of Health and Human Services and adequate healthcare coverage as defined in the Commissioners Living Wage resolution? YES____ NO ____

5. If no healthcare coverage is provided, are employees paid a wage equivalent to at least 130% of the most recent federal poverty guidelines for a family of four, as defined by the Department of Health and Human Services? YES____ NO ____

BIDDER:

SIGNATURE: _____

NAME: _____

TITLE: _____

DATE: _____

Sworn to before me and subscribed in my presence by the above named person this _____day of _____, 20_____.

NOTARY PUBLIC: _____

My Commission Expires:

_____