

NOTICE OF INTENT (NOI) for Land Application of Non-Exceptional Quality Biosolids

E. VECTOR ATTRACTION REDUCTION LEVEL ACHIEVED: Indicate the option used to achieve the vector attraction reduction.

Option 1 Option 2 Option 3 Option 4
 Option 5 Option 6 Option 7 Option 8

If one of the vector attraction reduction Options 1 - 5 is selected, do the biosolids meet Class A pathogen reduction requirements prior to or at the same time as meeting the vector attraction reduction requirements?
 Yes No

Provide a detailed description of the vector attraction reduction treatment process. Attach laboratory analytical and/or process monitoring results, as appropriate, that demonstrate vector attraction reduction is being achieved:

Vector attraction reduction is demonstrated by historical specific oxygen uptake rate (SOUR) tests on land applied biosolids. In 2013, eighty-four (84) samples were collected and tested for SOUR. SOUR results averaged 0.91 mg/hr/gm and at no time exceeded a rate of 1.5 mg/hr/gm as required by Article 3.1.3.d. Laboratory results are attached.

F. If one of the vector attraction reduction Options 1 - 8 above was not performed, indicate how the vector attraction reduction will be performed on the field as part of the land application process:

Option 9 (Subsurface Injection) Option 10 (Incorporation)

Not Applicable

G. SAMPLING PLAN: Include a detailed copy of the biosolids sampling plan as specified in the instructions. The sampling plan must address sampling protocols for contaminants, pathogen reduction, and vector attraction reduction quality criteria.

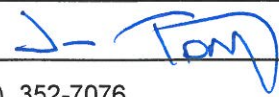
See attached.

H. LAND APPLICATION AREA(s): Include a list of land application area(s) that will be used for disposal of biosolids. Attach a detailed map showing appropriate buffers in accordance with section 3.2.1 (add additional pages if necessary)

Area Number	Area (acres)	Application Rate (tons/acre) per section 3.2.2	Latitude (decimal)	Longitude (decimal)
LA19A-X001	272.84	25	N 36°08'33"	W 86°54'14"

I. CERTIFICATION: I certify, under penalty of law, that contaminant concentrations in the biosolids, pathogen reduction, vector attraction reduction, and other quality criteria of the biosolids stated in the regulations have been met or, if appropriate, will be met prior to land application of biosolids. I further certify that other information in this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my own knowledge as well as the inquiry of the person(s) who manage the system, or those directly responsible for gathering the information, the information submitted, to the best of my knowledge and belief, is true, accurate and complete. I further acknowledge that the facility or generator of biosolids described above is eligible for coverage under TDEC's General Permit for the Land Application of Biosolids. I am aware that there are significant penalties for submitting false information, including possibility of fines and imprisonment for knowing violations. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury.

Name: Jay Tant, PE Title: Assistant Manager, Operations

Signature: 

Telephone: (615) 352-7076 Date Signed: 06 / 30 / 2014

NOTE: In evaluating NOI forms, TDEC may request additional information to complete its review to determine the eligibility for coverage under TDEC's General Permit.

Submit the original completed and signed form to Water.Permits@tn.gov or:
 Biosolids NOI Processing - Division of Water Resources
 William R. Snodgrass - Tennessee Tower, 312 Rosa L. Parks Avenue, 11th Floor
 Nashville, TN 37243-1102

PART C - CHEMICAL ANALYSIS

TCLP AND PCB ANALYTICAL RESULTS



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Mr. Jay Pendleton
 Harpeth Valley Utility District
 PO Box 210319
 Nashville, TN 37221

November 01, 2012

Date Received : October 25, 2012
 Description :
 Sample ID : BIOSOLIDS
 Collected By : J. Pendleton
 Collection Date : 10/25/12 08:10

ESC Sample # : L602705-01

Site ID :

Project :

Parameter	Result	Det. Limit	Units	Limit	Method	Date/Time	By	Dil
TCLP Extraction	-				1311	10/27/12 0720	MVE	1
Mercury	BDL	0.0010	mg/l	0.20	7470A	10/29/12 0912	CDC	1
Arsenic	BDL	0.050	mg/l	5.0	6010B	10/29/12 0020	ALT	1
Barium	0.43	0.15	mg/l	100	6010B	10/29/12 0020	ALT	1
Cadmium	BDL	0.050	mg/l	1.0	6010B	10/29/12 0020	ALT	1
Chromium	BDL	0.050	mg/l	5.0	6010B	10/29/12 0020	ALT	1
Lead	BDL	0.050	mg/l	5.0	6010B	10/29/12 0020	ALT	1
Selenium	BDL	0.050	mg/l	1.0	6010B	10/29/12 2132	JBC	1
Silver	BDL	0.050	mg/l	5.0	6010B	10/29/12 0020	ALT	1
TCLP ZHE Extraction	-				1311	10/28/12 0824	MVE	1
TCLP Volatiles								
Benzene	BDL	0.050	mg/l	0.50	8260B	10/30/12 1730	DAH	1
Carbon tetrachloride	BDL	0.050	mg/l	0.50	8260B	10/30/12 1730	DAH	1
Chlorobenzene	BDL	0.050	mg/l	100	8260B	10/30/12 1730	DAH	1
Chloroform	BDL	0.25	mg/l	6.0	8260B	10/30/12 1730	DAH	1
1,2-Dichloroethane	BDL	0.050	mg/l	0.50	8260B	10/30/12 1730	DAH	1
1,1-Dichloroethene	BDL	0.050	mg/l	0.70	8260B	10/30/12 1730	DAH	1
2-Butanone (MEK)	BDL	0.50	mg/l	200	8260B	10/30/12 1730	DAH	1
Tetrachloroethene	BDL	0.050	mg/l	0.70	8260B	10/30/12 1730	DAH	1
Trichloroethene	BDL	0.050	mg/l	0.50	8260B	10/30/12 1730	DAH	1
Vinyl chloride	BDL	0.050	mg/l	0.20	8260B	10/30/12 1730	DAH	1
Surrogate Recovery								
Toluene-d8	98.5		% Rec.	114.	8260B	10/30/12 1730	DAH	1
Dibromofluoromethane	98.0		% Rec.	125.	8260B	10/30/12 1730	DAH	1
a,a,a-Trifluorotoluene	104.		% Rec.	114.	8260B	10/30/12 1730	DAH	1
4-Bromofluorobenzene	117.		% Rec.	128.	8260B	10/30/12 1730	DAH	1
TCLP Semi-Volatiles								
1,4-Dichlorobenzene	BDL	0.10	mg/l	7.5	8270C	10/31/12 1856		1
2,4-Dinitrotoluene	BDL	0.10	mg/l	0.13	8270C	10/31/12 1856		1
Hexachlorobenzene	BDL	0.10	mg/l	0.13	8270C	10/31/12 1856		1
Hexachloro-1,3-butadiene	BDL	0.10	mg/l	0.50	8270C	10/31/12 1856		1
Hexachloroethane	BDL	0.10	mg/l	3.0	8270C	10/31/12 1856		1
Nitrobenzene	BDL	0.10	mg/l	2.0	8270C	10/31/12 1856		1
Pyridine	BDL	0.10	mg/l	5.0	8270C	10/31/12 1856		1
3&4-Methyl Phenol	BDL	0.10	mg/l	400	8270C	10/31/12 1856		1
2-Methylphenol	BDL	0.10	mg/l	200	8270C	10/31/12 1856		1
Pentachlorophenol	BDL	0.10	mg/l	100	8270C	10/31/12 1856		1
2,4,5-Trichlorophenol	BDL	0.10	mg/l	400	8270C	10/31/12 1856		1



YOUR LAB OF CHOICE

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Est. 1970

REPORT OF ANALYSIS

Mr. Jay Pendleton
 Harpeth Valley Utility District
 PO Box 210319
 Nashville, TN 37221

November 01, 2012

Date Received : October 25, 2012
 Description :
 Sample ID : BIOSOLIDS
 Collected By : J. Pendleton
 Collection Date : 10/25/12 08:10

ESC Sample # : L602705-01
 Site ID :
 Project :

Parameter	Result	Det. Limit	Units	Limit	Method	Date/Time	By	Dil
2,4,6-Trichlorophenol	BDL	0.10	mg/l	2.0	8270C	10/31/12 1856		1
Surrogate Recovery								
2-Fluorophenol	53.7		% Rec.	87.0	8270C	10/31/12 1856		1
Phenol-d5	39.1		% Rec.	67.0	8270C	10/31/12 1856		1
Nitrobenzene-d5	74.7		% Rec.	120.	8270C	10/31/12 1856		1
2-Fluorobiphenyl	84.5		% Rec.	122.	8270C	10/31/12 1856		1
2,4,6-Tribromophenol	73.6		% Rec.	148.	8270C	10/31/12 1856		1
p-Terphenyl-d14	91.2		% Rec.	149.	8270C	10/31/12 1856		1

BDL - Below Detection Limit
 Det. Limit - Estimated Quantitation Limit(EQL)
 Limit - Maximum Contaminant Level as established by the US EPA

Note:
 The reported analytical results relate only to the sample submitted.
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Reported: 11/01/12 09:44 Printed: 11/01/12 09:51



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 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

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REPORT OF ANALYSIS

June 27, 2014

Mr. Jay Pendleton
 Harpeth Valley Utility District
 PO Box 210319
 Nashville, TN 37221

Date Received : June 23, 2014
 Description : Sludge

Sample ID : DIGESTER 1

Collected By : James Pendleton
 Collection Date : 06/23/14 08:00

ESC Sample # : L706229-01

Site ID : TN0074748

Project # : BIOSOLIDS NOI

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	2.02	0.100	2.02		%	2540 G-2	06/26/14
Polychlorinated Biphenyls							
PCB 1016	BDL	0.085	BDL	4.2	mg/kg	8082	06/26/14
PCB 1221	BDL	0.085	BDL	4.2	mg/kg	8082	06/26/14
PCB 1232	BDL	0.085	BDL	4.2	mg/kg	8082	06/26/14
PCB 1242	BDL	0.085	BDL	4.2	mg/kg	8082	06/26/14
PCB 1248	BDL	0.085	BDL	4.2	mg/kg	8082	06/26/14
PCB 1254	BDL	0.085	BDL	4.2	mg/kg	8082	06/26/14
PCB 1260	BDL	0.085	BDL	4.2	mg/kg	8082	06/26/14
PCBs Surrogates							
Decachlorobiphenyl	65.1		65.1		% Rec.	8082	06/26/14
Tetrachloro-m-xylene	86.0		86.0		% Rec.	8082	06/26/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

Note:

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Reported: 06/27/14 15:19 Printed: 06/27/14 15:19



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 Mt. Juliet, TN 37122
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 1-800-767-5859
 Fax (615) 758-5859

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REPORT OF ANALYSIS

June 27, 2014

Mr. Jay Pendleton
 Harpeth Valley Utility District
 PO Box 210319
 Nashville, TN 37221

Date Received : June 23, 2014
 Description : Sludge

Sample ID : WTP HOLDING BASIN

Collected By : James Pendleton
 Collection Date : 06/23/14 08:00

ESC Sample # : L706229-02

Site ID : TN0074748

Project # : BIOSOLIDS NOI

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	0.262	0.100	0.262		%	2540 G-2	06/26/14
Polychlorinated Biphenyls							
PCB 1016	BDL	0.26	BDL	97.	mg/kg	8082	06/26/14
PCB 1221	BDL	0.26	BDL	97.	mg/kg	8082	06/26/14
PCB 1232	BDL	0.26	BDL	97.	mg/kg	8082	06/26/14
PCB 1242	BDL	0.26	BDL	97.	mg/kg	8082	06/26/14
PCB 1248	BDL	0.26	BDL	97.	mg/kg	8082	06/26/14
PCB 1254	BDL	0.26	BDL	97.	mg/kg	8082	06/26/14
PCB 1260	BDL	0.26	BDL	97.	mg/kg	8082	06/26/14
PCBs Surrogates							
Decachlorobiphenyl	72.7		72.7		% Rec.	8082	06/26/14
Tetrachloro-m-xylene	90.0		90.0		% Rec.	8082	06/26/14

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit(EQL)

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Reported: 06/27/14 15:19 Printed: 06/27/14 15:19

Summary of Remarks For Samples Printed
06/27/14 at 15:19:49

TSR Signing Reports: 067
R4 - Rush: Three Day

Sample: L706229-01 Account: HARP02 Received: 06/23/14 10:55 Due Date: 06/27/14 00:00 RPT Date: 06/27/14 15:19
Changed due date per RS. AV 6/24
Sample: L706229-02 Account: HARP02 Received: 06/23/14 10:55 Due Date: 06/27/14 00:00 RPT Date: 06/27/14 15:19

PART D - PATHOGEN REDUCTION

FECAL COLIFORM ANALYSIS

Digester Sludge Fecal Coliform Analysis 2013

12/4 - 12/5	12/5 - 12/6	12/6 - 12/7	12/7 - 12/8	12/9 - 12/10	12/10 - 12/11	12/11 - 12/12
0	0	0	0	0	0	0
TNTC	TNTC	TNTC	TNTC	TNTC	TNTC	TNTC
TNTC	34	TNTC				
			29	<1	TNTC	35
58	48	57	TNTC	55	54	56
20	TNTC	25	21	57	27	16
		TNTC				
					TNTC	
	TNTC			TNTC		
60			23			5
0	0	0	0	0	0	0
<hr/>						
13125	22766	17773	12046	19570	24079	14641
1.31	2.28	1.78	1.20	1.96	2.41	1.46
<hr/>						
39,619	12,006	30,758	20,753	38,153	22,426	24,862
4.5979	4.0794	4.4880	4.3171	4.5815	4.3508	4.3955
<hr/>						
25,203						
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PART E - VECTOR ATTRACTION REDUCTION

SPECIFIC OXYGEN UPTAKE RATE (SOUR) ANALYSIS

VECTOR ATTRACTION REDUCTION

Vector attraction reduction was achieved at this facility by employing Option 4. The specific oxygen uptake rate (SOUR) was equal to or less than 1.5 milligrams of oxygen per hour per gram of total solids.

503.33 (b) (4)

SOUR RESULTS

Date	SOUR mg/Hr/GM	Date	SOUR mg/Hr/GM
1/2/2013	0.6	3/9/2013	0.9
1/3/2013	0.5	3/13/2013	0.8
1/4/2013	0.4	3/14/2013	0.9
1/5/2013	0.3	3/16/2013	0.8
1/7/2013	0.9	3/19/2013	1.1
1/8/2013	0.8	3/20/2013	0.9
1/9/2013	0.6	3/25/2013	0.9
1/11/2013	0.4	3/27/2013	1.1
1/15/2013	0.6	3/30/2013	0.8
1/16/2013	0.5	4/1/2013	0.6
1/17/2013	1.2	4/3/2013	0.7
1/18/2013	1.1	4/4/2013	1.1
1/25/2013	0.9	4/10/2013	1.1
1/29/2013	0.9	4/13/2013	1.3
2/5/2013	1.2	4/19/2013	1.2
2/7/2013	1.2	4/23/2013	1.2
2/8/2013	1.1	4/27/2013	0.5
2/12/2013	0.7	4/30/2013	1.1
2/13/2013	1.3	5/4/2013	0.9
2/14/2013	0.7	5/7/2013	1.1
2/19/2013	1.2	5/11/2013	1.1
2/20/2013	1.3	5/13/2013	1.3
2/22/2013	1.2	5/17/2013	1.3
2/28/2013	1.2	5/20/2013	1
3/1/2013	0.9	5/22/2013	1.2
3/2/2013	0.8	5/26/2013	1.3
3/5/2013	0.8	5/29/2013	1.1
3/7/2013	0.5	6/2/2013	1.3

SOUR RESULTS cont.

Date	SOUR mg/Hr/Gm
6/7/2013	1.3
6/9/2013	1.2
6/11/2013	0.9
6/18/2013	1
6/25/2013	0.9
6/28/2013	1.1
7/3/2013	0.9
7/5/2013	0.8
7/10/2013	0.6
7/17/2013	0.9
7/18/2013	1.4
7/26/2013	1.4
7/30/2013	0.9
8/7/2013	0.6
8/16/2013	1.2
8/21/2013	0.3
8/31/2013	1.2
9/5/2013	0.5
9/17/2013	0.6
9/24/2013	0.2
10/1/2013	1.2
10/4/2013	0.3
10/12/2013	1.2
10/22/2013	0.3
11/4/2013	0.3
11/14/2013	1.3
12/2/2013	1.1
12/18/2013	0.7

PART G - SAMPLING PLAN

SAMPLING PLAN

Pathogen Reduction Verification:

Samples of land applied sludge will be collected six (6) times a year as required by Article 3.1.4.e. Seven (7) discrete samples will be analyzed for fecal coliform in order to ensure pathogen reduction.

Vector Attraction Reduction Verification:

Standard operating procedure of aerobic digestion process ensures vector attraction reduction is achieved. Waste sludge is mixed and aerated until the required SOUR is achieved. Seven (7) discrete samples will be collected and analyzed for SOUR to ensure adequate vector attraction reduction.

For all samples, standard methods will be used for collecting, holding, and testing.

PART H - LAND APPLICATION AREA

APPLICATION SITE LAYOUT



HMUD
WWTP

APPLICATION
SITE
LA19A-X001

100' SETBACK AS
REQUIRED BY ARTICLE
3.2.1

Best-Buy - N

Targ