



700 West Liberty Street  
Louisville Kentucky 40203-1911  
502-540-6000  
www.msdlouky.org

March 21, 2013

Cheryl Edwards  
Permit Support Section  
Surface Water Permits Branch  
Division of Water  
200 Fair Oaks Lane 4<sup>th</sup> Floor  
Frankfort, KY 40601

**Re: Morris Forman Water Quality Treatment Center  
KPDES Permit No. KY0022411**

Dear Ms. Edwards:

In accordance with the provisions of the KPDES Permit referenced above, the monthly Discharge Monitoring Report (DMR) for the reporting period February 1<sup>st</sup> to February 28<sup>th</sup> is provided through NetDMR. There were no Discharge (overflow) Reports for the month of February. All permit requirements were met for the month of February, 2013.

Should you have any questions, please contact me at (502) 540-6793.

Sincerely,

A handwritten signature in black ink that reads "Alex E. Novak". The signature is written in a cursive style with a large, prominent "A" and "N".

Alex E. Novak, P.E.  
Director of Operations

paw

MFDMR0213.doc



*Beneficial Use of Louisville's Biosolids*  
[www.louisvillegreen.com](http://www.louisvillegreen.com)

# DMR Copy of Record

<b>Permit</b>			
<b>Permit #:</b>	<b>KY0022411</b>	<b>Permittee:</b>	MORRIS FORMAN WQTC MSD
<b>Major:</b>	Yes	<b>Permittee Address:</b>	4522 ALGONQUIN PKWY LOUISVILLE, KY 40211
<b>Permitted Feature:</b>	001 External Outfall	<b>Discharge:</b>	<b>001-1</b> MUNICIPAL DISCHARGE
<b>Facility:</b>		<b>Facility Location:</b>	MORRIS FORMAN WQTC MSD 4522 ALGONQUIN PKWY LOUISVILLE, KY 40211

<b>Report Dates &amp; Status</b>			
<b>Monitoring Period:</b>	<b>From 02/01/13 to 02/28/13</b>	<b>DMR Due Date:</b>	<b>03/28/13</b>
<b>Status:</b>	<b>NetDMR Validated</b>		

**Considerations for Form Completion**  
 G - INFLUENTE - SECONDARY EFFLUENT1 - FINAL EFFLUENT - Parameter 74055 - Use Season 1 for summer months (May, June, July, August, September, and October) and Season 2 for winter months (November, December, January, February March, and April); enter NODI=9 for the Season not needed.

<b>Principal Executive Officer</b>			
<b>First Name:</b>	Greg	<b>Title:</b>	Executive Director
<b>Last Name:</b>	Heitzman	<b>Telephone:</b>	502-540-6000

**No Data Indicator (NODI)**  
 Form NODI: --

Code	Parameter Name	Monitoring Location	Season #	Param. NODI	Quantity or Loading					Quality or Concentration					# of Ex.	Frequency of Analysis	Sample Type				
					Qualifier 1	Value 1	Qualifier 2	Value 2	Units	Qualifier 1	Value 1	Qualifier 2	Value 2	Qualifier 3				Value 3	Units		
00300	Oxygen, dissolved (DO)	1 - Effluent Gross	0	--	Sample					=	8.2					19 - mg/L	0	01/01 - Daily	GR - GRAB		
					Permit Req.					>=	2 INST MIN					19 - mg/L		01/01 - Daily	GR - GRAB		
					Value NODI																
00310	BOD, 5-day, 20 deg. C	E - Secondary/Biological Process Complete	0	--	Sample	=	14762	=	16405	26 - lb/d		=	20	=	25	19 - mg/L	0	01/01 - Daily	CP - COMPOS		
					Permit Req.		Req Mon MO AVG		Req Mon MX WK AV	26 - lb/d		<=	30 MO AVG	<=	45 MX WK AV	19 - mg/L		01/01 - Daily	CP - COMPOS		
					Value NODI																
00310	BOD, 5-day, 20 deg. C	G - Raw Sewage Influent	0	--	Sample	=	250806	=	305763	26 - lb/d		=	317	=	371	19 - mg/L	0	01/01 - Daily	CP - COMPOS		
					Permit Req.		Req Mon MO AVG		Req Mon MX WK AV	26 - lb/d			Req Mon MO AVG		Req Mon MX WK AV	19 - mg/L		01/01 - Daily	CP - COMPOS		
					Value NODI																
00400	pH	1 - Effluent Gross	0	--	Sample					=	6.4			=	7.3	12 - SU	0	01/01 - Daily	GR - GRAB		
					Permit Req.						>=	6 MINIMUM			<=	9 MAXIMUM		12 - SU	01/01 - Daily	GR - GRAB	
					Value NODI																
00530	Solids, total suspended	E - Secondary/Biological Process Complete	0	--	Sample	=	10053	=	12544	26 - lb/d		=	13	=	15	19 - mg/L	0	01/01 - Daily	CP - COMPOS		
					Permit Req.		Req Mon MO AVG		Req Mon MX WK AV	26 - lb/d		<=	30 MO AVG	<=	45 MX WK AV	19 - mg/L		01/01 - Daily	CP - COMPOS		
					Value NODI																
00530	Solids, total suspended	G - Raw Sewage Influent	0	--	Sample	=	330064	=	420134	26 - lb/d		=	411	=	555	19 - mg/L	0	01/01 - Daily	CP - COMPOS		
					Permit Req.		Req Mon MO AVG		Req Mon MX WK AV	26 - lb/d			Req Mon MO AVG		Req Mon MX WK AV	19 - mg/L		01/01 - Daily	CP - COMPOS		
					Value NODI																
00610	Nitrogen, ammonia total (as N)	E - Secondary/Biological Process Complete	0	--	Sample	=	8058	=	9290	26 - lb/d		=	11	=	14.3	19 - mg/L	0	01/01 - Daily	CP - COMPOS		
					Permit Req.		Req Mon MO AVG		Req Mon MX WK AV	26 - lb/d		<=	20 MO AVG	<=	30 MX WK AV	19 - mg/L		01/01 - Daily	CP - COMPOS		
					Value NODI																
00610	Nitrogen, ammonia total (as N)	G - Raw Sewage Influent	0	--	Sample	=	9472	=	9678	26 - lb/d		=	12.2	=	14.3	19 - mg/L	0	01/01 - Daily	CP - COMPOS		
					Permit Req.		Req Mon MO AVG		Req Mon MX WK AV	26 - lb/d			Req Mon MO AVG		Req Mon MX WK AV	19 - mg/L		01/01 - Daily	CP - COMPOS		
					Value NODI																
50050	Flow, in conduit or thru treatment plant	E - Secondary/Biological Process Complete	0	--	Sample	=	91.32	=	131.1	03 - MGD							0	99/99 - Continuous	CN - CONTIN		
					Permit Req.		Req Mon MO AVG		Req Mon DAILY MX	03 - MGD								99/99 - Continuous	CN - CONTIN		
					Value NODI																
50060	Chlorine, total residual	1 - Effluent Gross	0	--	Sample									<	0.01	19 - mg/L	0	01/01 - Daily	GR - GRAB		
					Permit Req.											<=		.019 DAILY MX	19 - mg/L	01/01 - Daily	GR - GRAB
					Value NODI																
74055	Coliform, fecal general	1 - Effluent Gross	2	--	Sample							=	48	=	132	13 - #/100mL	0	01/01 - Daily	GR - GRAB		
					Permit Req.							<=	1000 30DA GEO	<=	2000 7 DA GEO	13 - #/100mL		01/01 - Daily	GR - GRAB		
					Value NODI																
81010	BOD, 5-day, percent removal	K - Percent Removal	0	--	Sample					=	94					23 - %	0	01/30 - Monthly	CA - CALCTD		
					Permit Req.							>=	85 MO MIN					23 - %	01/30 - Monthly	CA - CALCTD	
					Value NODI																
81011	Solids, suspended percent removal	K - Percent Removal	0	--	Sample					=	97					23 - %	0	01/30 - Monthly	CA - CALCTD		
					Permit Req.							>=	85 MO MIN					23 - %	01/30 - Monthly	CA - CALCTD	
					Value NODI																

**Submission Note**  
 If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

**Edit Check Errors**  
 No errors.

**Comments**

**Attachments**

Name	Type	Size
201302MFWQTCMOR.pdf	pdf	31782
201302MFWQTCCoverLetter.pdf	pdf	12780

**Report Last Saved By**

**MORRIS FORMAN WQTC MSD**

User:	richgalardi	Date/Time:	2013-03-26 11:00 (Time Zone: -04:00)
Name:	Richard Galardi		
E-Mail:	rich.galardi@louisvillemsd.org		

**DMR Copy of Record**

<b>Permit</b>			
Permit #:	KY0022411	Permittee:	MORRIS FORMAN WQTC MSD
Major:	Yes	Permittee Address:	4522 ALGONQUIN PKWY LOUISVILLE, KY 40211
Permitted Feature:	001 External Outfall	Discharge:	001-B SECONDARY BYPASS
Facility:		Facility Location:	MORRIS FORMAN WQTC MSD 4522 ALGONQUIN PKWY LOUISVILLE, KY 40211

<b>Report Dates &amp; Status</b>			
Monitoring Period:	From 02/01/13 to 02/28/13	DMR Due Date:	03/28/13
Status:	NetDMR Validated		

**Considerations for Form Completion**  
 MONITORING DURING PERIODS OF SECONDARY BYPASS IN ADDITION TO REGULAR MONITORING.1 - FINAL EFFLUENTF - SECONDARY BYPASS AFTER PRIMARYTREATMENT.

<b>Principal Executive Officer</b>			
First Name:	Greg	Title:	Executive Director
Last Name:	Heitzman	Telephone:	502-540-6000

**No Data Indicator (NODI)**  
 Form NODI: --

Code	Parameter Name	Monitoring Location	Season #	Param. NODI	Quantity or Loading					Quality or Concentration					# of Ex.	Frequency of Analysis	Sample Type		
					Qualifier 1	Value 1	Qualifier 2	Value 2	Units	Qualifier 1	Value 1	Qualifier 2	Value 2	Qualifier 3				Value 3	Units
00310	BOD, 5-day, 20 deg. C	1 - Effluent Gross	0	--	Sample						=	23	=	35	19 - mg/L	10/30 - Ten Per Month WH/DS - When Discharging	CP - COMPOS CP - COMPOS		
					Permit Req.										Req Mon MO AVG			Req Mon MX WK AV	19 - mg/L 0
					Value NODI														
00310	BOD, 5-day, 20 deg. C	F - Primary/Preliminary Process Complete	0	--	Sample						=	142	=	160	19 - mg/L	10/30 - Ten Per Month WH/DS - When Discharging	CP - COMPOS CP - COMPOS		
					Permit Req.										Req Mon MO AVG			Req Mon MX WK AV	19 - mg/L 0
					Value NODI														
00530	Solids, total suspended	1 - Effluent Gross	0	--	Sample						=	30	=	50	19 - mg/L	10/30 - Ten Per Month WH/DS - When Discharging	CP - COMPOS CP - COMPOS		
					Permit Req.										Req Mon MO AVG			Req Mon MX WK AV	19 - mg/L 0
					Value NODI														
00530	Solids, total suspended	F - Primary/Preliminary Process Complete	0	--	Sample						=	128	=	167	19 - mg/L	10/30 - Ten Per Month WH/DS - When Discharging	CP - COMPOS CP - COMPOS		
					Permit Req.										Req Mon MO AVG			Req Mon MX WK AV	19 - mg/L 0
					Value NODI														
00610	Nitrogen, ammonia total (as N)	1 - Effluent Gross	0	--	Sample						=	12.83	=	16.3	19 - mg/L	10/30 - Ten Per Month WH/DS - When Discharging	CP - COMPOS CP - COMPOS		
					Permit Req.										Req Mon MO AVG			Req Mon MX WK AV	19 - mg/L 0
					Value NODI														
00610	Nitrogen, ammonia total (as N)	F - Primary/Preliminary Process Complete	0	--	Sample						=	14.6	=	19	19 - mg/L	10/30 - Ten Per Month WH/DS - When Discharging	CP - COMPOS CP - COMPOS		
					Permit Req.										Req Mon MO AVG			Req Mon MX WK AV	19 - mg/L 0
					Value NODI														
50050	Flow, in conduit or thru treatment plant	F - Primary/Preliminary Process Complete	0	--	Sample	=	15.93	=	35.78	03 - MGD					10/30 - Ten Per Month WH/DS - When Discharging	CN - CONTIN CN - CONTIN			
					Permit Req.		Req Mon MO AVG		Req Mon MX WK AV	03 - MGD									
					Value NODI														

**Submission Note**  
 If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

**Edit Check Errors**  
 No errors.

**Comments**

**Attachments**  
 No attachments.

**Report Last Saved By**  
**MORRIS FORMAN WQTC MSD**

User:	richgalardi	Date/Time:	2013-03-26 10:46 (Time Zone: -04:00)
Name:	Richard Galardi		
E-Mail:	rich.galardi@louisvillemsd.org		

DATE	WASTEWATER FLOWS (Million Gallons)			TEMP (DEGF)		pH		SETS (M/L)		TSS (mg/L)		TS (mg/L)		D.O. (mg/L)	5-DAY BOD (mg/L)			RETURN SLUDGE				AERATION BASIN			ACTIVE		CHLORINATION			FINAL EFFLUENT				
	Effluent	Effluent	Bypass	raw	final	raw	final	raw	final	raw	final	raw	final	final	raw	final	prim.	final	final	MG	TSS g/L	TVSS g/L	D.O. mg/L	MLSS g/L	MLVSS g/L	SET	SVI	Sludge Wasted MG	Primary Sludge MG	Chlorine Dosage KLBS	Resid mg/L	Fecal Coliform #/100 ml	NH3-N mg/L	Pump. Hours
2/1	100.93	100.93	0.0	55	55	7.1	6.8	12.0	0.1	212	14			11.8	292	115	9	26.0	11.4	9.1	20.0	3.3	2.8	202	71	0.91	0.31	1.38	0.010	5	11	24.00		
2/2	106.71	103.61	3.1	55	55	7.3	6.7	11.0	0.1	268	14			11.9	225	127	11	25.7	10.8	8.1	19.7	2.5	2.1	200	85	0.82	0.29	1.19	0.010	40	11	24.00		
2/3	100.0	100.0	0.0	57	57	7.2	6.6	10.0	0.1	272	19			11.2	262	163	14	26.1	10.2	8.4	19.4	3.2	2.5	208	67	0.84	0.34	1.14	0.010	117	8	24.00		
2/4	115.28	103.14	12.14	57	57	7.3	6.7	17.0	0.1	410	21			10.9	290	134	20	25.8	7.7	6.4	19.9	2.8	2.1	226	84	0.94	0.33	2.04	0.010	34	12	24.00		
2/5	102.67	102.55	0.12	58	58	7.5	6.7	10.0	0.1	328	13			12.4	240	114	8	26.2	9.0	7.5	20.0	3.1	2.5	211	70	0.80	0.23	1.48	0.010	58	10	24.00		
2/6	94.01	94.01	0.0	54	56	7.4	6.7	16.0	0.1	448	14			11.3	340	129	7	27.3	9.5	7.8	20.0	2.6	2.0	214	83	0.90	0.21	1.60	0.010	9	12	24.00		
2/7	83.15	83.15	0.0	59	59	7.2	6.7	14.0	0.1	380	10			9.3	299	152	8	26.9	7.1	5.9	19.1	3.8	3.2	246	87	1.10	0.31	1.28	0.010	11	14	24.00		
2/8	99.2	99.2	0.0	59	59	7.1	6.5	16.0	0.1	364	11			10.7	320	154	7	27.6	12.5	10.3	18.9	3.4	2.8	212	63	1.11	0.27	1.62	0.010	62	13	24.00		
2/9	78.45	78.45	0.0	57	57	7.3	6.7	23.0	0.1	360	10			10.4	371	120	8	26.8	11.6	9.9	19.8	2.9	2.5	220	76	1.11	0.11	1.28	0.010	7	15	24.00		
2/10	102.19	90.95	11.24	58	58	7.2	6.6	12.0	0.3	346	21			10.8	195	119	15	26.2	10.0	8.3	19.8	2.7	2.2	227	85	0.98	0.10	2.10	0.010	88	15	24.00		
2/11	85.21	85.21	0.0	59	59	7.3	6.6	19.0	0.1	386	11			12.3	328	96	10	27.0	7.6	6.9	19.9	2.5	2.4	213	85	0.90	0.22	1.53	0.010	5	11	11.00		
2/12	77.78	77.78	0.0	59	59	7.3	6.8	15.0	0.1	336	8			11.2	352	134	9	27.4	8.1	6.7	20.0	2.7	2.5	262	99	0.91	0.27	1.03	0.010	34	16	0.00		
2/13	87.86	87.86	0.0	59	59	7.0	6.7	21.0	0.1	376	15			10.7	301	143	11	27.1	7.6	6.2	19.5	2.6	2.2	214	84	0.97	0.32	1.35	0.010	20	17	0.00		
2/14	77.88	77.88	0.0	59	59	7.2	6.6	12.0	0.1	190	13			10.1	231	149	9	27.1	6.9	5.9	18.9	3.4	3.3	248	94	1.02	0.29	1.20	0.010	10	16	0.00		
2/15	77.04	77.04	0.0	59	59	7.4	6.4	25.0	0.1	474	12			8.8	385	180	12	26.7	9.8	8.2	18.4	5.0	4.2	266	81	1.12	0.32	1.18	0.010	9	18	0.00		
2/16	71.79	71.79	0.0	55	55	7.5	7.1	35.0	0.1	532	15			11.2	442	177	14	26.4	8.6	6.8	18.1	2.5	2.0	232	96	1.22	0.27	1.10	0.010	86	19	0.00		
2/17	66.13	66.13	0.0	57	57	7.4	7.3	16.0	0.1	452	21			11.9	330	167	16	26.3	6.6	5.5	19.6	3.0	2.6	200	61	0.86	0.34	1.01	0.010	232	17	0.00		
2/18	77.88	77.0	0.88	63	63	7.3	6.9	28.0	0.1	890	17			10.7	463	174	13	26.0	6.6	5.4	19.6	2.7	2.2	220	80	0.62	0.32	1.22	0.010	98	18	1.00		
2/19	132.27	108.21	24.06	57	57	7.4	7.0	17.0	0.8	468	48			9.4	302	158	48	26.7	10.1	8.5	19.9	3.1	2.9	254	83	0.72	0.36	2.71	0.010	320	14	0.00		
2/20	75.05	75.05	0.0	56	56	7.5	7.0	17.0	0.1	548	65			11.4	371	194	17	27.5	7.5	6.3	19.1	4.0	3.9	269	70	0.91	0.39	1.17	0.010	184	15	0.00		
2/21	76.91	76.45	0.46	58	58	7.4	7.0	11.0	0.1	522	13			8.2	302	147	8	28.5	8.8	7.6	16.6	4.8	3.2	300	76	1.12	0.40	1.36	0.010	31	17	0.00		
2/22	160.42	121.63	38.79	53	53	7.4	7.0	26.0	0.5	576	44			13.7	377	169	31	28.4	13.3	10.7	18.8	3.5	2.7	217	63	1.24	0.28	3.24	0.010	300	10	0.00		
2/23	81.95	81.95	0.0	56	56	7.7	7.0	29.0	0.1	504	13			8.8	399	102	8	28.4	11.3	9.6	19.7	3.1	2.5	239	77	1.21	0.26	1.16	0.010	66	12	0.00		
2/24	74.3	74.3	0.0	58	56	7.4	7.0	15.0	0.1	338	11			9.1	306	169	8	28.1	7.8	6.2	19.6	2.8	2.3	249	90	1.18	0.28	1.04	0.010	14	13	0.00		
2/25	78.09	78.09	0.0	56	56	7.4	7.0	20.0	0.1	470	17			10.6	401	145	9	27.8	8.1	6.8	19.8	3.6	2.5	227	72	1.12	0.37	1.05	0.010	42	15	0.00		
2/26	181.55	126.23	55.32	57	57	7.4	6.9	12.0	3.5	444	87			11.4	265	188	54	28.1	8.0	6.8	20.0	2.4	2.2	216	89	0.98	0.33	4.89	0.010	2450	14	0.00		
2/27	144.32	131.1	13.22	52	52	7.5	7.0	12.0	0.1	322	19			13.1	245	89	19	28.3	8.7	7.6	20.0	2.3	2.1	228	100	1.01	0.13	4.48	0.010	236	8	0.00		
2/28	107.27	107.27	0.0	55	55	7.2	7.1	13.5	0.1	280	29			12.4	208	117	10	28.4	10.5	8.7	20.0	5.6	5.1	236	53	1.07	0.25	2.16	0.010	102	12	0.00		
Total	2716.3	2557.0	159.3															758.9								27.690	7.900					252.00		
Average	97.0	91.3	5.7	57	57	7.3	6.8	17.3	0.3	411	22			10.9	317	144	15	27.1	9.1	7.6	19.4	3.2	2.7	231	79	0.99	0.28	1.71	0.010	48	14	0.00		

SEWER CONNECTIONS

131042 TIMES 4 = 524168 SEWER POPULATION

IND. WASTER POPULATION EQ  
 CUSTOMERS 374  
 FLOW 399740  
 BOD 982123  
 TSS 1057639

Authorized Agent

Certification No. 4663

MORRIS FORMAN WASTEWATER TREATMENT PLANT

JEFFERSON COUNTY, KY

Month of Feb-13

Average Flow

SETTLING TANKS	Primary	Secondary		
		Battery A	Battery B	Battery C
Average Flow (MGD)	98.55	26.89	33.28	11.30
Tanks in Service	3.89	7.3	7.8	3.8
Surface Area (Ft.2)	74940.25	63058.50	67643.00	33043.00
Volume (MG)	8.11	6.46	6.93	3.38
Weir Length (Ft.)	2783.50	2613.47	2803.47	1369.47
Avg. Weir Overflow (GPD/Ft)	35406.23	10290.04	11871.51	8249.91
Avg. Settling Rate (GPD/Ft2)	1315.09	593.86	666.68	485.64
Avg. Detention Time	1.97	5.76	5.00	7.19

AERATION TANKS

	Battery A	Battery B	Battery C
Volume (Gallons)	4200000	4200000	2100000
Avg. Flow (MGD)	37.45	45.10	16.05
Avg. Detention Time (Hours)	3.75	3.03	4.46

CHLORINE CONTACT CHAMBERS

Contact Chambers in Use	2.0
Volume (Gallons)	2340000
Avg. Detention Time (Hours)	1.04

Remarks: BY-PASS REPORTS (See Attached)