



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

February 15, 2016

Cheryl Edwards
Permit Support Section
Surface Water Permits Branch
Division of Water
200 Fair Oaks Lane 4th 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) and monthly Discharge (overflow) Reports for the reporting period January 1st to January 31st are provided through NetDMR. All permit requirements were met for the month of January, 2016.

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

Sincerely,

A handwritten signature in cursive script that reads "Alex E. Novak".

Alex E. Novak, P.E.
Treatment Facilities Director

vgt



Beneficial Use of Louisville's Biosolids
www.louisvillegreen.com

DMR Copy of Record

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

Report Dates & Status					
Monitoring Period:	From 01/01/16 to 01/31/16	DMR Due Date:	02/28/16	Status:	NetDMR Validated

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.

Principal Executive Officer					
First Name:	James A	Title:	Executive Director	Telephone:	502-540-6000
Last Name:	Parrott				

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					=	4.9					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	=	12949	=	22058	26 - lb/d		=	18	=	33	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	=	313551	=	363582	26 - lb/d		=	424	=	541	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					=	6.3			=	6.9	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	=	15614	=	17587	26 - lb/d		=	21	=	27	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	=	261175	=	319345	26 - lb/d		=	344	=	390	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	=	9260	=	10544	26 - lb/d		=	12.5	=	15.2	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	=	9510	=	10452	26 - lb/d		=	13	=	15.9	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	=	91.94	=	140.58	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									<	0.012	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							=	152	=	293	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					=	96					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					=	93					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
MFWQTCoverletter012016.pdf	pdf	56800
MFWQTC012016MOR.pdf	pdf	324103

Report Last Saved By

MORRIS FORMAN WQTC MSD

User: robin.burch@louisvillemsd.org

Date/Time: 2016-02-18 11:21 (Time Zone: -05:00)

Name: Robin Burch

E-Mail: robin.burch@louisvillemsd.org

DMR Copy of Record

Permit			
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

Report Dates & Status			
Monitoring Period:	From 01/01/16 to 01/31/16	DMR Due Date:	02/28/16
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.

Principal Executive Officer			
First Name:	James A	Title:	Executive Director
Last Name:	Parrott	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
00310	BOD, 5-day, 20 deg. C	1 - Effluent Gross	0	--	Sample						=	15	=	18	19 - mg/L	09/30 - Nine Per Month WH/DS - When Discharging	CP - COMPOS CP - COMPOS	
					Permit Req.										Req Mon MO AVG			Req Mon MX WK AV
					Value NODI													
00310	BOD, 5-day, 20 deg. C	F - Primary/Preliminary Process Complete	0	--	Sample						=	129	=	275	19 - mg/L	09/30 - Nine Per Month WH/DS - When Discharging	CP - COMPOS CP - COMPOS	
					Permit Req.										Req Mon MO AVG			Req Mon MX WK AV
					Value NODI													
00530	Solids, total suspended	1 - Effluent Gross	0	--	Sample						=	22	=	26	19 - mg/L	09/30 - Nine Per Month WH/DS - When Discharging	CP - COMPOS CP - COMPOS	
					Permit Req.										Req Mon MO AVG			Req Mon MX WK AV
					Value NODI													
00530	Solids, total suspended	F - Primary/Preliminary Process Complete	0	--	Sample						=	74	=	114	19 - mg/L	09/30 - Nine Per Month WH/DS - When Discharging	CP - COMPOS CP - COMPOS	
					Permit Req.										Req Mon MO AVG			Req Mon MX WK AV
					Value NODI													
00610	Nitrogen, ammonia total [as N]	1 - Effluent Gross	0	--	Sample						=	11	=	15.7	19 - mg/L	09/30 - Nine Per Month WH/DS - When Discharging	CP - COMPOS CP - COMPOS	
					Permit Req.										Req Mon MO AVG			Req Mon MX WK AV
					Value NODI													
00610	Nitrogen, ammonia total [as N]	F - Primary/Preliminary Process Complete	0	--	Sample						=	13.7	=	20.3	19 - mg/L	09/30 - Nine Per Month WH/DS - When Discharging	CP - COMPOS CP - COMPOS	
					Permit Req.										Req Mon MO AVG			Req Mon MX WK AV
					Value NODI													
50050	Flow, in conduit or thru treatment plant	F - Primary/Preliminary Process Complete	0	--	Sample	=	12.78	=	20.08	03 - MGD					09/30 - Nine 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:	robin.burch@louisvillemsd.org	Date/Time:	2016-02-18 11:21 (Time Zone: -05:00)
Name:	Robin Burch		
E-Mail:	robin.burch@louisvillemsd.org		

Format: Month/Day/Year
 Enter Start Date : 1/1/16

Press (Ctrl r) to recalculate spreadsheet.

MORRIS FORMAN WATER QUALITY TREATMENT CENTER JEFFERSON COUNTY, KENTUCKY MONTH OF January-16
 KPDE8 PERMIT NO. KY0022411 PLANT CAPACITY - 120 MGD RECEIVING STREAM-OHIO RIVER

DATE	WASTEWATER FLOWS (Million Gallons)			TEMP (DEGF)		pH		SETS (ML)		TSS (mg/L)		D.O. (mg/L)	5-DAY BOD (mg/L)			RETURN SLUDGE			AERATION BASIN					ACTIVE		CHLORINATION			FINAL EFFLUENT		
	Final	Sec.	Bypass	raw	final	raw	final	raw	final	raw	final	final	raw	prim.	final	final	FLOW 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
	Effluent	Effluent																													
1/1/16	176.65	140.58	36.07	56	56	7.1	6.5	6.0	0.1	164	27	10.6	191	96	28	30.7	12.2	9.1	16.4	2.9	2.2	213	74	1.06	0.40	4.06	0.012	700	5	24.0	
1/2/16	167.51	139.28	28.23	52	52	7.1	6.8	8.0	0.3	145	38	11.4	105	43	21	30.9	11.9	8.8	16.8	2.8	2.1	203	71	1.02	0.42	2.73	0.012	995	8	24.0	
1/3/16	157.99	138.00	19.99	55	55	7.1	6.8	6.0	0.2	100	26	11.9	93	36	11	30.4	12.4	9.1	18.1	2.5	1.9	190	76	0.98	0.41	2.62	0.012	455	8	24.0	
1/4/16	152.58	138.70	13.88	52	52	7.1	6.8	10.0	0.2	208	20	12.4	193	50	16	29.4	11.2	7.9	17.9	2.1	1.5	147	66	0.89	0.40	2.58	0.012	600	9	24.0	
1/5/16	117.38	115.15	2.21	54	54	7.0	6.7	13.0	0.1	344	17	11.1	355	117	12	28.6	10.4	7.4	18.6	2.3	1.7	157	68	0.89	0.39	2.65	0.012	230	11	13.3	
1/6/16	89.31	89.31	0.00	57	57	6.9	6.7	15.0	0.1	356	16	7.6	461	147	10	28.7	9.2	6.7	12.8	2.4	1.8	151	62	0.88	0.42	2.09	0.012	84	15	0.0	
1/7/16	84.93	84.93	0.00	58	58	7.1	6.9	20.0	0.6	496	16	9.6	455	126	8	28.7	8.9	6.9	6.9	2.9	2.2	159	54	0.84	0.32	2.09	0.012	50	19	0.0	
1/8/16	108.79	108.79	0.00	63	63	6.9	6.8	20.0	0.2	488	14	9.6	514	163	11	28.7	8.9	7.6	15.9	2.1	1.9	119	56	0.78	0.40	2.86	0.012	45	16	0.0	
1/9/16	105.63	97.10	8.53	59	59	7.0	6.6	17.9	0.1	488	17	6.9	382	132	17	29.3	9.0	7.3	14.7	2.5	2.1	137	57	0.78	0.43	2.15	0.012	34	15	0.0	
1/10/16	113.97	109.52	4.45	54	54	6.9	6.4	13.0	0.5	372	19	9.7	322	137	8	29.8	9.4	7.6	16.6	2.3	1.8	169	73	0.90	0.34	2.35	0.012	20	11	0.0	
1/11/16	90.40	90.40	0.00	54	54	7.0	6.6	12.0	0.1	290	17	8.3	440	192	9	29.6	8.6	7.1	14.2	2.1	1.8	135	63	0.94	0.33	1.93	0.012	144	13	0.0	
1/12/16	92.01	92.01	0.00	54	54	7.0	6.6	17.0	0.3	448	16	6.8	601	198	10	29.9	10.2	8.3	13.7	3.0	2.4	201	68	0.97	0.37	1.88	0.012	92	14	0.0	
1/13/16	82.78	82.78	0.00	55	55	6.9	6.6	13.0	0.1	364	21	6.8	508	246	11	30.4	10.5	8.8	10.5	2.6	2.2	190	72	1.00	0.40	1.78	0.012	208	13	0.0	
1/14/16	83.84	83.84	0.00	58	58	6.9	6.5	10.0	0.1	280	17	6.8	331	220	8	30.1	10.3	8.5	12.1	2.9	2.4	217	75	1.09	0.43	1.94	0.012	53	13	0.0	
1/15/16	95.73	94.21	1.52	57	57	6.9	6.6	18.1	0.1	422	20	6.8	480	207	15	30.1	10.0	8.7	12.6	2.8	2.4	348	116	1.21	0.40	1.75	0.012	116	16	0.0	
1/16/16	86.12	86.12	0.00	59	59	7.1	6.7	15.0	0.1	386	20	5.6	447	177	9	29.8	11.1	9.6	10.7	2.7	2.4	230	83	1.21	0.34	1.52	0.012	210	16	0.0	
1/17/16	78.89	78.89	0.00	56	56	7.1	6.8	15.0	0.1	386	16	7.2	407	192	8	29.4	11.4	9.7	13.5	3.3	2.9	269	79	1.08	0.32	1.36	0.012	43	18	0.0	
1/18/16	73.28	73.28	0.00	50	50	7.0	6.6	13.0	0.2	324	14	5.8	376	174	15	29.0	9.5	8.3	15.8	2.8	2.4	257	94	1.06	0.37	1.11	0.012	188	19	0.0	
1/19/16	71.79	71.79	0.00	51	51	7.0	6.7	13.0	0.2	322	44	7.9	361	214	28	29.0	8.5	7.1	16.0	2.8	2.3	217	76	1.07	0.15	1.44	0.012	370	17	0.0	
1/20/16	78.31	78.22	0.09	50	50	7.0	6.6	14.0	0.1	314	12	6.5	517	342	9	29.7	10.7	9.1	16.5	3.1	2.6	246	80	1.06	0.17	1.37	0.012	168	15	0.0	
1/21/16	79.55	79.55	0.00	47	47	7.0	6.7	21.0	0.2	476	44	5.5	1200	673	46	30.2	10.2	8.9	10.7	2.8	2.4	226	81	1.05	0.20	2.30	0.012	3300	11	0.0	
1/22/16	75.74	75.74	0.00	51	51	7.1	6.5	14.0	0.1	340	30	4.9	463	310	38	30.2	12.3	10.8	10.4	4.9	4.3	313	64	1.13	0.20	2.11	0.012	745	9	0.0	
1/23/16	70.07	70.07	0.00	53	53	7.2	6.8	11.0	0.2	274	34	4.9	376	312	33	30.2	11.6	10.3	10.4	2.7	2.4	307	114	1.22	0.20	1.59	0.012	39	8	0.0	
1/24/16	69.33	69.33	0.00	52	52	7.1	6.3	13.0	0.1	342	22	5.6	391	234	15	30.1	11.1	9.6	10.7	3.6	3.2	301	84	1.36	0.31	1.43	0.012	103	11	0.0	
1/25/16	89.21	89.21	0.00	51	51	7.0	6.6	16.0	0.2	400	21	6.9	568	386	13	30.1	10.0	8.8	13.6	3.2	2.9	274	86	1.39	0.36	1.64	0.012	96	15	0.0	
1/26/16	89.21	89.21	0.00	56	56	6.9	6.8	14.0	0.2	400	32	7.1	449	257	14	29.9	12.1	10.4	11.1	2.9	2.5	228	79	1.27	0.41	1.90	0.012	84	14	0.0	
1/27/16	79.49	79.49	0.00	56	56	7.0	6.6	3.0	0.1	172	17	6.8	260	548	10	30.1	10.2	8.8	12.7	3.1	2.7	241	75	1.16	0.25	1.55	0.012	45	16	0.0	
1/28/16	79.87	79.87	0.00	55	55	7.0	6.6	7.0	0.1	250	21	6.8	353	581	22	30.6	10.8	9.4	11.8	3.8	3.3	294	73	1.15	0.31	1.59	0.012	162	15	0.0	
1/29/16	72.11	72.11	0.00	55	55	6.9	6.6	4.5	0.1	236	28	6.5	383	654	23	30.5	12.7	11.3	11.7	4.3	4.2	333	75	1.19	0.47	1.74	0.012	160	14	0.0	
1/30/16	78.51	78.51	0.00	58	58	6.9	6.6	25.0	0.1	652	24	5.2	554	450	207	31.1	13.6	12.2	11.3	5.1	4.5	457	88	1.41	0.47	2.08	0.012	160	13	0.0	
1/31/16	78.37	78.37	0.00	60	60	7.1	6.5	21.0	0.2	440	27	5.7	606	576	19	32.0	14.4	12.4	10.5	5.2	4.5	380	76	1.52	0.26	1.79	0.012	291	12	0.0	
Total	2964.9	2849.9	115.0													927.1								33.557	10.668					109.2	
Average	95.6	91.9	3.7	54.8	54.8	7.0	6.6	13.5	0.2	344	23	7.6	424	264	23	29.9	10.8	8.9	13.4	3.0	2.6	236	76	1.08	0.34	2.00	0.012	152	13		

SEWER CONNECTIONS 148190 TIMES 4 = 584780 SEWER POPULATION

IND. WASTER POPULATION EQ
 CUSTOMERS 359
 FLOW 328119
 BOD 1404388
 TSS 723715

Authorized Agent



Certification No. 5691

MORRIS FORMAN WASTEWATER TREATMENT PLANT

JEFFERSON COUNTY, KY

Month of Jan-16

Average Flow

SETTLING TANKS	Primary	Secondary		
		Battery A	Battery B	Battery C
Average Flow (MGD)	95.64	27.88	21.41	10.53
Tanks in Service	4.00	7.5	7.0	3.3
Surface Area (Ft.2)	77000.00	64646.30	60338.50	28273.25
Volume (MG)	8.33	6.62	6.18	2.90
Weir Length (Ft.)	2860.00	2679.27	2500.73	1171.79
Avg. Weir Overflow (GPD/Ft)	33441.35	10405.30	8560.03	8982.85
Avg. Settling Rate (GPD/Ft2)	1242.11	633.07	565.48	520.21
Avg. Detention Time	2.09	5.70	6.93	6.60

AERATION TANKS	Battery A	Battery B	Battery C
Volume (Gallons)	4200000	4200000	2100000
Avg. Flow (MGD)	40.93	34.12	14.71
Avg. Detention Time (Hours)	3.62	4.71	4.79

CHLORINE CONTACT CHAMBERS

Contact Chambers in Use	2.0
Volume (Gallons)	2340000
Avg. Detention Time (Hours)	1.01

Remarks: BY-PASS REPORTS (See Attached)

**Louisville and Jefferson County
Metropolitan Sewer District
Wastewater Customer Count**

January-16

<u>Plant Code</u>	<u>Service Area</u>		<u>Residential Customers</u>	<u>Commercial Customers</u>	<u>Industrial Customers</u>	<u>Metro Customers</u>	<u>Multi Customers</u>	<u>Total Customers</u>
140	Derek Guthrie	LWC	64,909	3,882	22	26	3	68,842
151	Morris Forman - City	LWC	79,271	10,494	309	248	25	90,347
152	Morris Forman - County	LWC	51,457	4,968	50	33	1	56,509
			130,728	15,462	146190	359	146549	
153	Hite Creek	LWC	8,374	584	7	0	0	8,965
160	Berrytown	LWC	2	0	0	0	0	2
164	McNeely Lake	LWC	396	1	0	0	0	397
197	Starview	LWC	147	16	0	1	0	164
235	Glen Oaks - Sec. 5 Only	LWC	267	1	0	0	0	268
237	Cedar Creek	LWC	17,337	1,156	9	3	6	18,511
238	Bancroft	LWC	202	1	0	0	0	203
239	Hunting Creek	LWC	1,539	32	0	0	0	1,571
244	Moser Farm (Hite Creek)	LWC	166	0	0	0	0	166
294	Floyds Fork	LWC	8,088	335	0	1	0	8,424
Grand Total			362,883	36,932	756	312	35	254,369

Submitted by: Adonis Hende
Date: 2/3/2