



700 West Liberty Street | Louisville, KY 40203-1911
Phone: 502.540.6000 | LouisvilleMSD.org

March 21, 2017

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 February 1st to February 28th, 2017 are provided through NetDMR. The Morris Forman Water Quality Treatment Center (MFWQTC) did not meet the Secondary seven and 30 day TSS, 30 day BOD limits, or percent removal for TSS. All other effluent parameters were met.

Capital construction involving process area shutdowns and compromised solids processing capability contributed to the exceedances. MFWQTC continued to employ additional solids processing methods and is purchasing additional Liquid Oxygen in an effort to meet permit requirements.

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

Sincerely,

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

Vgt

DMR Copy of Record

Permit					
Permit #:	KY0022411	Permittee:	Morris Forman WQTC MSD	Facility:	MORRIS FORMAN WQTC MSD
Major:	Yes	Permittee Address:	700 W Liberty St Louisville, KY 40203	Facility Location:	4522 ALGONQUIN PKWY LOUISVILLE, KY 40211
Permitted Feature:	001 External Outfall	Discharge:	001-1 MUNICIPAL DISCHARGE		

Report Dates & Status					
Monitoring Period:	From 02/01/17 to 02/28/17	DMR Due Date:	03/28/17	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:	Anthony	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					=	4.5					19 - mg/L	0	01/01 - Daily	GR - GRAB				
					Permit Req.					>=	2 INST MIN					19 - mg/L		01/01 - Daily	GR - GRAB				
					Value NODI																		
X 00310	BOD, 5-day, 20 deg. C	E - Secondary/Biological Process Complete	0	--	Sample	=	39684	=	66419	26 - lb/d		=	74	=	107	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	=	260556	=	376180	26 - lb/d		=	478	=	556	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					=	6.2				12 - SU	0	01/01 - Daily	GR - GRAB					
					Permit Req.					>=	6 MINIMUM			<=	9 MAXIMUM		12 - SU	01/01 - Daily	GR - GRAB				
					Value NODI																		
X 00530	Solids, total suspended	E - Secondary/Biological Process Complete	0	--	Sample	=	67299	=	112199	26 - lb/d		=	125	=	180	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	=	296731	=	384079	26 - lb/d		=	553	=	599	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	=	8015	=	8838	26 - lb/d		=	16.1	=	19.3	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	=	7066	=	8876	26 - lb/d		=	13.8	=	14.7	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	=	62.3	=	106.97	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									<	0.016	19 - mg/L	0	01/01 - Daily	GR - GRAB				
					Permit Req.											<=		0.019 DAILY MX	19 - mg/L	01/01 - Daily	GR - GRAB		
					Value NODI																		
74055	Coliform, fecal general	1 - Effluent Gross	2	--	Sample									=	41	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					=	85					23 - %	0	01/30 - Monthly	CA - CALCTD				
					Permit Req.											>=		85 MO MIN	23 - %	01/30 - Monthly	CA - CALCTD		
					Value NODI																		
X 81011	Solids, suspended percent removal	K - Percent Removal	0	--	Sample					=	77					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						
Code	Parameter Name	Monitoring Location	Field	Type	Description	Acknowledge

81011	Solids, suspended percent removal	K - Percent Removal	Quality or Concentration Sample Value 1	Soft	The provided sample value is outside the permit limit. (Error Code: 1)	Yes
00310	BOD, 5-day, 20 deg. C	E - Secondary/Biological Process Complete	Quality or Concentration Sample Value 2	Soft	The provided sample value is outside the permit limit. (Error Code: 1)	Yes
00310	BOD, 5-day, 20 deg. C	E - Secondary/Biological Process Complete	Quality or Concentration Sample Value 3	Soft	The provided sample value is outside the permit limit. (Error Code: 1)	Yes
00530	Solids, total suspended	E - Secondary/Biological Process Complete	Quality or Concentration Sample Value 2	Soft	The provided sample value is outside the permit limit. (Error Code: 1)	Yes
00530	Solids, total suspended	E - Secondary/Biological Process Complete	Quality or Concentration Sample Value 3	Soft	The provided sample value is outside the permit limit. (Error Code: 1)	Yes

Comments

Attachments

Name	Type	Size
MFWQTC022017Coverletter.pdf	pdf	46949
MFWQTC022017MOR.pdf	pdf	133847

Report Last Saved By

Morris Forman WQTC MSD

User:	robin.burch@louisvillemsd.org	Date/Time:	2017-03-23 11:37 (Time Zone: -04:00)
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:	700 W Liberty St Louisville, KY 40203
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 02/01/17 to 02/28/17	DMR Due Date:	03/28/17
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:	Anthony	Title:	Exective 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						=	207		=	344	19 - mg/L	05/30 - 5 Times Every Month WH/DS - When Discharging	CP - COMPOS
					Permit Req.											19 - mg/L		
					Value NODI													
00310	BOD, 5-day, 20 deg. C	F - Primary/Preliminary Process Complete	0	--	Sample						=	353		=	471	19 - mg/L	05/30 - 5 Times Every Month WH/DS - When Discharging	CP - COMPOS
					Permit Req.											19 - mg/L		
					Value NODI													
00530	Solids, total suspended	1 - Effluent Gross	0	--	Sample						=	305		=	390	19 - mg/L	05/30 - 5 Times Every Month WH/DS - When Discharging	CP - COMPOS
					Permit Req.											19 - mg/L		
					Value NODI													
00530	Solids, total suspended	F - Primary/Preliminary Process Complete	0	--	Sample						=	537		=	724	19 - mg/L	05/30 - 5 Times Every Month WH/DS - When Discharging	CP - COMPOS
					Permit Req.											19 - mg/L		
					Value NODI													
00610	Nitrogen, ammonia total [as N]	1 - Effluent Gross	0	--	Sample						=	14.2		=	15.5	19 - mg/L	05/30 - 5 Times Every Month WH/DS - When Discharging	CP - COMPOS
					Permit Req.											19 - mg/L		
					Value NODI													
00610	Nitrogen, ammonia total [as N]	F - Primary/Preliminary Process Complete	0	--	Sample						=	19		=	23.6	19 - mg/L	05/30 - 5 Times Every Month WH/DS - When Discharging	CP - COMPOS
					Permit Req.											19 - mg/L		
					Value NODI													
50050	Flow, in conduit or thru treatment plant	F - Primary/Preliminary Process Complete	0	--	Sample	=	11.78	=	11.05	03 - MGD						05/30 - 5 Times Every Month WH/DS - When Discharging	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:	2017-03-23 11:37 (Time Zone: -04:00)
Name:	Robin Burch		
E-Mail:	robin.burch@louisvillemsd.org		

DATE	WASTEWATER FLOWS (Million Gallons)			TEMP (DEGF)		pH		SETS (M/L)		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
2/1/17	60.61	60.61	0.00	60	60	7.0	6.4	35.0	12.0	756	328	6.0	779	600	159	29.7	17.9	15.0	10.2	5.4	4.6	413	76	1.53	0.20	3.00	0.016	195	13	0.0		
2/2/17	51.87	51.87	0.00	59	59	6.8	6.4	27.0	4.0	592	157	7.0	569	554	70	29.3	17.9	15.1	9.5	8.4	7.1	460	55	1.25	0.33	2.43	0.016	38	15	0.0		
2/3/17	54.41	54.41	0.00	57	57	7.0	6.5	27.1	2.3	660	123	7.8	699	413	69	29.2	18.1	15.3	7.6	6.1	5.2	492	80	1.63	0.34	2.54	0.016	12	16	0.0		
2/4/17	50.68	50.68	0.00	56	56	7.1	6.3	20.3	0.7	580	57	5.2	628	461	37	29.1	18.6	16.0	6.4	6.1	5.3	434	72	1.80	0.34	2.08	0.016	66	17	0.0		
2/5/17	49.54	49.54	0.00	57	57	7.0	6.5	20.0	2.0	400	108	5.0	372	348	62	28.9	18.2	15.5	8.3	6.2	5.3	486	78	1.74	0.24	1.78	0.016	50	15	0.0		
2/6/17	55.19	55.19	0.00	60	60	7.1	6.6	20.0	2.0	500	105	5.4	449	275	61	29.0	18.2	16.0	9.0	5.4	4.7	466	86	1.65	0.29	2.08	0.016	70	18	0.0		
2/7/17	120.77	96.01	24.76	62	62	6.8	6.5	15.0	30.0	592	318	6.4	396	471	344	29.3	18.2	15.5	6.5	5.7	4.9	373	65	1.74	0.33	4.75	0.016	133	16	0.0		
2/8/17	86.47	85.48	0.99	60	60	6.8	6.5	17.5	0.4	475	39	5.4	366	217	30	29.3	17.6	14.9	8.9	4.5	3.8	288	65	1.73	0.31	3.09	0.016	10	13	0.0		
2/9/17	63.54	63.54	0.00	56	56	7.1	6.4	17.0	0.1	352	17	9.9	286	225	13	29.3	17.9	15.3	10.3	4.6	3.9	324	71	1.76	0.39	1.44	0.016	28	14	0.0		
2/10/17	58.58	58.58	0.00	56	56	7.1	6.5	17.0	0.1	445	16	5.8	340	376	13	29.3	19.5	16.5	7.2	7.2	6.0	388	54	1.77	0.40	1.25	0.016	19	17	10.4		
2/11/17	58.47	58.47	0.00	58	58	7.1	7	22.0	0.1	604	32	6.2	288	433	24	29.2	19.4	16.7	5.9	11.6	10.1	389	34	1.74	0.39	1.70	0.016	18	19	24.0		
2/12/17	55.32	55.32	0.00	66	66	7.0	6.6	18.0	0.1	400	17	7.1	342	483	20	29.3	16.6	14.1	10.3	5.3	4.5	400	75	1.25	0.27	1.21	0.016	54	15	24.0		
2/13/17	50.09	50.09	0.00	61	61	7.1	6.3	18.0	0.5	412	63	5.5	405	246	42	29.4	18.5	15.6	8.4	6.3	5.3	408	65	0.43	0.22	1.43	0.016	133	16	24.0		
2/14/17	54.37	54.37	0.00	61	61	7.1	6.4	20.0	0.3	364	27	4.5	353	389	25	29.3	17.0	14.3	10.9	6.2	5.2	380	62	1.45	0.46	1.47	0.016	48	24	24.0		
2/15/17	52.95	52.95	0.00	60	60	7.0	6.4	24.0	1.0	496	60	4.5	409	327	43	29.1	17.2	14.4	9.2	4.9	4.1	451	93	1.28	0.39	1.77	0.016	19	22	24.0		
2/16/17	56.78	56.78	0.00	59	59	7.0	6.4	25.0	5.0	556	65	5.6	460	337	39	29.1	18.4	15.6	12.6	4.6	3.9	394	85	1.28	0.37	1.99	0.016	44	20	24.0		
2/17/17	54.01	54.01	0.00	64	64	7.1	6.4	25.0	0.3	592	34	6.0	546	440	28	29.4	18.8	16.1	9.6	5.8	5.2	378	66	1.42	0.36	2.18	0.016	10	20	16.1		
2/18/17	57.90	57.90	0.00	61	61	7.0	6.4	20.0	5.0	532	198	5.2	316	414	112	29.0	19.3	16.8	11.0	5.8	5.1	432	75	1.51	0.35	2.41	0.016	104	21	0.0		
2/19/17	53.89	53.89	0.00	62	62	7.0	6.3	39.0	4.5	840	178	5.3	536	273	112	28.7	18.8	16.3	10.8	6.9	5.9	397	61	1.50	0.33	2.21	0.016	25	15	0.0		
2/20/17	50.90	50.90	0.00	60	60	7.1	6.4	30.0	20.0	596	356	6.9	466	412	211	28.4	17.6	15.1	12.0	5.8	5.0	406	70	1.50	0.42	1.73	0.016	58	18	0.0		
2/21/17	54.18	54.18	0.00	62	62	6.8	6.5	24.0	18.0	544	363	6.5	521	435	228	27.8	16.3	14.4	10.1	5.5	4.9	377	69	1.49	0.39	2.92	0.016	2	22	0.0		
2/22/17	52.88	52.88	0.00	66	66	6.7	6.4	39.0	3.0	1000	134	5.4	808	346	72	27.5	18.7	16.7	12.0	5.9	5.3	409	69	1.50	0.37	2.36	0.016	128	20	0.0		
2/23/17	54.55	54.55	0.00	66	66	6.6	6.6	21.0	2.0	552	97	4.5	476	398	51	27.7	18.0	15.4	8.4	5.8	4.9	403	70	1.51	0.45	2.17	0.016	209	20	0.0		
2/24/17	87.40	71.57	15.83	72	72	6.5	6.5	29.5	26.2	916	692	4.5	560	596	352	27.5	17.9	15.2	7.5	5.2	4.4	412	80	1.50	0.39	3.94	0.016	195	21	0.0		
2/25/17	88.36	86.17	2.19	61	61	7.0	6.2	12.5	8.8	412	266	4.7	315	156	171	27.5	17.5	15.5	6.0	4.4	3.8	251	58	1.48	0.40	3.14	0.016	48	10	0.0		
2/26/17	70.08	70.08	0.00	59	59	7.1	6.3	16.3	0.1	348	41	5.5	390	97	19	27.7	18.7	16.1	8.5	4.7	4.1	260	55	1.48	0.42	1.99	0.016	54	10	0.0		
2/27/17	77.23	77.23	0.00	61	61	7.0	6.4	14.9	0.1	428	22	6.8	358	195	18	27.3	17.6	15.3	11.7	4.5	3.9	286	64	1.48	0.37	2.00	0.016	44	12	0.0		
2/28/17	122.11	106.98	15.13	61	61	7.0	6.6	16.6	5.2	536	212	7.0	944	327	139	27.2	18.5	15.6	13.3	5.7	4.8	255	45	1.49	0.41	5.77	0.016	9	13	0.0		
Sum	1965.0	1870.0	95.0													830.7								43.354	10.385					185.0		
Average	67.8	64.5	15.8	60.7	60.7	7.0	6.5	22.5	5.5	553	147	5.9	478	366	92	28.6	17.5	15.0	9.4	5.7	4.9	386	68	1.49	0.36	2.46	0.016	41	17			

SEWER CONNECTIONS

147452 TIMES 4 =

589808 SEWER POPULATION

IND. WASTER POPULATION EQ

CUSTOMERS 372

FLOW 55502

BOD 998284

TSS 897900

Authorized Agent



Certification No. 5691

MORRIS FORMAN WASTEWATER TREATMENT PLANT

JEFFERSON COUNTY, KY

Month of Feb-17

Average Flow

SETTLING TANKS	Primary	Secondary		
		Battery A	Battery B	Battery C
Average Flow (MGD)	67.76	13.01	14.94	8.55
Tanks in Service	4.00	5.8	7.0	3.6
Surface Area (Ft.2)	77000.00	49845.51	60496.66	30860.52
Volume (MG)	8.33	5.11	6.20	3.16
Weir Length (Ft.)	2860.00	2065.85	2507.29	1279.02
Avg. Weir Overflow (GPD/Ft)	23691.46	6299.92	5957.02	6686.84
Avg. Settling Rate (GPD/Ft2)	879.97	461.72	467.76	448.05
Avg. Detention Time	2.95	9.42	9.96	8.87

AERATION TANKS

	Battery A	Battery B	Battery C
Volume (Gallons)	4200000	4200000	2100000
Avg. Flow (MGD)	23.01	28.30	13.83
Avg. Detention Time (Hours)	7.75	6.75	5.89

CHLORINE CONTACT CHAMBERS

Contact Chambers in Use	2.0
Volume (Gallons)	2340000
Avg. Detention Time (Hours)	2.16

Remarks: BY-PASS REPORTS (See Attached)