



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

October 16, 2023

Crystal Dennis
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. Dennis:

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 September 1st through September 30th, 2023, are provided through NetDMR. The Morris Forman Water Quality Treatment Center (MFWQTC) did not meet permit for 7 day Fecal Coliform, 30 day Fecal Coliform, pH, 30 day BOD, 7 day BOD, 30 day TSS, 7 day TSS, TSS and BOD percent removal reporting requirements.

Compromised solids handling equipment continue to contribute to our effluent exceedances. MSD has installed dewatering services at a satellite facility. This dewatering service has reduced the solids loading to the Morris Forman plant. The emergency dryer project has completed, and improved solids handling is online.

Should you have any questions, please contact me at (502) 540-6765.

Sincerely,



James Skinner
Treatment Facilities Manager

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

Parameter		Monitoring Location	Field	Type	Description	Acknowledge
Code	Name					
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. Please verify that the value you have provided is correct.	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. Please verify that the value you have provided is correct.	Yes
81010	BOD, 5-day, percent removal	K - Percent Removal	Quality or Concentration Sample Value 1	Soft	The provided sample value is outside the permit limit. Please verify that the value you have provided is correct.	Yes
00400	pH	1 - Effluent Gross	Quality or Concentration Sample Value 1	Soft	The provided sample value is outside the permit limit. Please verify that the value you have provided is correct.	Yes
81011	Solids, suspended percent removal	K - Percent Removal	Quality or Concentration Sample Value 1	Soft	The provided sample value is outside the permit limit. Please verify that the value you have provided is correct.	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. Please verify that the value you have provided is correct.	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. Please verify that the value you have provided is correct.	Yes
74055	Coliform, fecal general	1 - Effluent Gross	Quality or Concentration Sample Value 3	Soft	The provided sample value is outside the permit limit. Please verify that the value you have provided is correct.	Yes
74055	Coliform, fecal general	1 - Effluent Gross	Quality or Concentration Sample Value 2	Soft	The provided sample value is outside the permit limit. Please verify that the value you have provided is correct.	Yes

Comments**Attachments**

Name	Type	Size
CoverLetterMFWQTC09023.pdf	pdf	44634.0
MFWQTCMOR09023.pdf	pdf	120378.0

Report Last Saved By**Morris Forman WQTC MSD**

User: AJOP1117
 Name: Amber Pauly
 E-Mail: amber.pauly@louisvillemmsd.org
 Date/Time: 2023-10-16 13:08 (Time Zone: -04:00)

Report Last Signed By

User: SKINNER@LOUISVILLEMSD.ORG
 Name: James skinner
 E-Mail: james.skinner@louisvillemmsd.org
 Date/Time: 2023-10-17 06:52 (Time Zone: -04:00)

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-B SECONDARY BYPASS		

Report Dates & Status					
Monitoring Period:	From 09/01/23 to 09/30/23	DMR Due Date:	10/28/23	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	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
00310	BOD, 5-day, 20 deg. C	1 - Effluent Gross	0	--	Sample						=	129.0	=	129.0	19 - mg/L	0	01/30 - Monthly WH/DS - When Discharging	CP - COMPOS CP - COMPOS
					Permit Req.							Req Mon MO AVG		Req Mon MX WK AV	19 - mg/L			
					Value NODI													
00310	BOD, 5-day, 20 deg. C	F - Primary/Preliminary Process Complete	0	--	Sample						=	160.0	=	160.0	19 - mg/L	0	01/30 - Monthly WH/DS - When Discharging	CP - COMPOS CP - COMPOS
					Permit Req.							Req Mon MO AVG		Req Mon MX WK AV	19 - mg/L			
					Value NODI													
00530	Solids, total suspended	1 - Effluent Gross	0	--	Sample						=	380.0	=	380.0	19 - mg/L	0	01/30 - Monthly WH/DS - When Discharging	CP - COMPOS CP - COMPOS
					Permit Req.							Req Mon MO AVG		Req Mon MX WK AV	19 - mg/L			
					Value NODI													
00530	Solids, total suspended	F - Primary/Preliminary Process Complete	0	--	Sample						=	272.0	=	272.0	19 - mg/L	0	01/30 - Monthly WH/DS - When Discharging	CP - COMPOS CP - COMPOS
					Permit Req.							Req Mon MO AVG		Req Mon MX WK AV	19 - mg/L			
					Value NODI													
00610	Nitrogen, ammonia total [as N]	1 - Effluent Gross	0	--	Sample						=	17.2	=	17.2	19 - mg/L	0	01/30 - Monthly WH/DS - When Discharging	CP - COMPOS CP - COMPOS
					Permit Req.							Req Mon MO AVG		Req Mon MX WK AV	19 - mg/L			
					Value NODI													
00610	Nitrogen, ammonia total [as N]	F - Primary/Preliminary Process Complete	0	--	Sample						=	16.4	=	16.4	19 - mg/L	0	01/30 - Monthly WH/DS - When Discharging	CP - COMPOS CP - COMPOS
					Permit Req.							Req Mon MO AVG		Req Mon MX WK AV	19 - mg/L			
					Value NODI													
50050	Flow, in conduit or thru treatment plant	F - Primary/Preliminary Process Complete	0	--	Sample	=	2.1	=	2.1	03 - MGD					0	01/30 - Monthly 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: AJOP1117
 Name: Amber Pauly
 E-Mail: amber.pauly@louisvillemSD.org
 Date/Time: 2023-10-16 13:03 (Time Zone: -04:00)

Report Last Signed By
 User: SKINNER@LOUISVILLEMSD.ORG

Name: James skinner
E-Mail: james.skinner@louisvillemsd.org
Date/Time: 2023-10-17 06:56 (Time Zone: -04:00)

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-Y BIOMONITORING/ONCE PER QUARTER
Facility:		Facility:	MORRIS FORMAN WQTC MSD
		Facility Location:	4522 ALGONQUIN PKWY LOUISVILLE, KY 40211

Report Dates & Status			
Monitoring Period:	From 07/01/23 to 09/30/23	DMR Due Date:	10/28/23
Status:	NetDMR Validated		

Considerations for Form Completion

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			
00900	Hardness, total [as CaCO3]	1 - Effluent Gross	0	--	Sample						=	227.0	=	227.0	19 - mg/L		01/90 - Quarterly	CP - COMPOS
					Permit Req.						Req Mon MO AVG		Req Mon DAILY MX	19 - mg/L				
					Value NODI													
01025	Cadmium, dissolved [as Cd]	1 - Effluent Gross	0	--	Sample						<	0.01	<	0.01	19 - mg/L		01/90 - Quarterly	CP - COMPOS
					Permit Req.						Req Mon MO AVG		Req Mon DAILY MX	19 - mg/L				
					Value NODI													
01040	Copper, dissolved [as Cu]	1 - Effluent Gross	0	--	Sample						<	0.01	<	0.01	19 - mg/L		01/90 - Quarterly	CP - COMPOS
					Permit Req.						Req Mon MO AVG		Req Mon DAILY MX	19 - mg/L				
					Value NODI													
01049	Lead, dissolved [as Pb]	1 - Effluent Gross	0	--	Sample						<	0.05	<	0.05	19 - mg/L		01/90 - Quarterly	CP - COMPOS
					Permit Req.						Req Mon MO AVG		Req Mon DAILY MX	19 - mg/L				
					Value NODI													
01090	Zinc, dissolved [as Zn]	1 - Effluent Gross	0	--	Sample						<	0.05	<	0.05	19 - mg/L		01/90 - Quarterly	CP - COMPOS
					Permit Req.						Req Mon MO AVG		Req Mon DAILY MX	19 - mg/L				
					Value NODI													
01094	Zinc, total recoverable	1 - Effluent Gross	0	--	Sample						=	0.06	=	0.06	19 - mg/L		01/90 - Quarterly	CP - COMPOS
					Permit Req.						Req Mon MO AVG		Req Mon DAILY MX	19 - mg/L				
					Value NODI													
01113	Cadmium, total recoverable	1 - Effluent Gross	0	--	Sample						<	0.01	<	0.01	19 - mg/L		01/90 - Quarterly	CP - COMPOS
					Permit Req.						Req Mon MO AVG		Req Mon DAILY MX	19 - mg/L				
					Value NODI													
01114	Lead, total recoverable	1 - Effluent Gross	0	--	Sample						<	0.05	<	0.05	19 - mg/L		01/90 - Quarterly	CP - COMPOS
					Permit Req.						Req Mon MO AVG		Req Mon DAILY MX	19 - mg/L				
					Value NODI													
01119	Copper, total recoverable	1 - Effluent Gross	0	--	Sample						=	0.015	=	0.015	19 - mg/L		01/90 - Quarterly	CP - COMPOS
					Permit Req.						Req Mon MO AVG		Req Mon DAILY MX	19 - mg/L				
					Value NODI													
61406	Toxicity, final conc toxicity units	1 - Effluent Gross	0	--	Sample								<	1.0	2F - tox acute		01/90 - Quarterly	G2 - GRAB-2
					Permit Req.								<=	1.0 DAILY MX	2F - tox acute			
					Value NODI													

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Edit Check Errors
No errors.

Comments

Attachments
No attachments.

Report Last Saved By

Morris Forman WQTC MSD

User: AJOP1117
Name: Amber Pauly
E-Mail: amber.pauly@louisvillemtd.org
Date/Time: 2023-10-16 13:08 (Time Zone: -04:00)

Report Last Signed By

User: SKINNER@LOUISVILLEMSD.ORG
Name: James skinner
E-Mail: james.skinner@louisvillemtd.org
Date/Time: 2023-10-17 06:59 (Time Zone: -04:00)

Format: Month/Day/Year
 Enter Start Date : 9/1/23

MORRIS FORMAN WATER QUALITY TREATMENT CENTER JEFFERSON COUNTY, KENTUCKY MONTH OF September-23
 KPDES 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		
	Effluent	Effluent	Bypass	raw	final	raw	final	raw	final	raw	final	final	raw	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
9/1/23	64.85	64.85	0.00	78	78	6.6	6.5	10.5	0.6	384	216	3.2	531	421	257	12.9	20.7	17.4	0.2	6.1	5.1	376	62	0.94	0.11	3.55	0.016	60000	23.8	0.0
9/2/23	61.92	61.92	0.00	79	79	6.9	6.2	8.0	0.7	236	240	4.1	315	223	177	13.3	22.4	19.0	0.2	7.3	6.2	380	52	0.00	0.15	1.72	0.016	60000	18.1	0.0
9/3/23	58.98	58.98	0.00	79	79	7.1	6.4	2.8	0.1	96	100	3.6	161	165	106	13.3	23.7	20.0	0.2	7.2	6.1	400	56	0.00	0.17	3.02	0.016	60000	10.9	0.0
9/4/23	58.81	58.81	0.00	79	79	7.2	6.2	0.5	0.3	48	115	6.1	84	84	96	13.2	22.0	18.7	1.6	7.2	6.1	444	69	0.00	0.17	3.16	0.016	28	7.7	0.0
9/5/23	63.88	63.88	0.00	80	80	6.9	6.3	2.0	0.1	193	58	5.7	243	133	59	13.1	24.2	20.5	3.4	8.6	7.3	483	56	0.38	0.18	3.84	0.016	10	8.0	0.0
9/6/23	70.07	70.07	0.00	80	80	6.9	6.4	2.2	0.2	203	138	4.4	336	262	138	12.6	20.9	17.7	0.2	5.9	5.0	391	66	1.15	0.24	2.45	0.016	62	20.1	0.0
9/7/23	67.69	67.69	0.00	79	79	6.4	6.4	10.0	0.1	370	64	3.6	403	264	173	24.7	20.8	17.6	0.3	7.2	6.1	380	53	1.44	0.30	3.32	0.016	60000	22.0	0.0
9/8/23	61.50	61.50	0.00	79	79	6.6	6.6	4.0	0.4	228	217	3.5	511	491	215	33.0	22.6	19.4	0.2	6.8	5.9	440	64	1.14	0.04	3.27	0.016	60000	21.0	0.0
9/9/23	60.01	60.01	0.00	79	79	6.6	6.2	8.0	0.8	388	252	3.2	626	531	194	34.2	23.3	20.1	0.2	6.7	5.7	480	72	0.00	0.00	3.31	0.016	60000	16.3	0.0
9/10/23	55.89	55.89	0.00	79	79	6.5	6.1	12.0	2.5	354	296	3.0	524	519	234	32.0	21.3	18.1	0.3	9.3	7.7	578	62	0.00	0.10	3.92	0.016	60000	11.5	0.0
9/11/23	59.72	59.72	0.00	78	78	6.8	5.9	7.0	0.5	256	224	3.1	549	465	523	19.0	20.1	17.5	1.4	5.9	5.1	397	55	1.18	0.18	3.70	0.016	60000	20.0	0.0
9/12/23	61.16	61.16	0.00	78	78	6.7	6.3	4.0	0.5	212	228	3.2	349	348	382	26.8	15.4	13.4	3.5	6.2	5.4	424	71	1.30	0.16	2.74	0.016	60000	25.0	0.0
9/13/23	62.40	62.40	0.00	78	78	6.7	6.1	10.0	4.0	380	520	4.0	530	527	453	33.0	21.6	18.6	1.0	6.8	5.9	436	63	1.44	0.10	5.32	0.016	60000	20.5	0.0
9/14/23	60.24	60.24	0.00	71	71	6.7	6.1	8.0	0.9	332	300	4.4	618	851	382	30.6	20.8	18.0	0.8	6.6	5.8	379	56	1.44	0.02	6.94	0.016	60000	16.6	0.0
9/15/23	57.79	57.79	0.00	69	69	6.7	6.3	18.0	2.0	520	350	3.1	548	549	372	31.4	21.2	18.6	0.4	6.6	5.8	380	57	0.89	0.19	9.21	0.016	60000	20.0	0.0
9/16/23	56.32	56.32	0.00	77	77	6.7	6.1	13.0	9.0	370	550	3.2	790	525	518	34.9	20.2	17.5	0.3	7.8	6.7	469	59	0.00	0.10	9.67	0.016	60000	17.9	0.0
9/17/23	60.38	60.38	0.00	77	77	6.5	6	6.5	8.0	375	590	3.1	600	582	399	33.9	20.9	18.2	0.3	7.5	6.6	479	63	0.00	0.00	9.67	0.016	60000	14.5	0.0
9/18/23	43.01	43.01	0.00	76	76	6.9	6.3	8.0	1.0	320	290	3.8	487	353	266	33.7	19.1	16.6	0.3	7.5	6.5	402	54	0.98	0.13	8.83	0.016	60000	24.6	0.0
9/19/23	50.72	50.72	0.00	74	74	6.7	6.4	27.0	1.0	613	300	3.9	407	545	138	32.4	16.4	14.3	1.2	6.6	5.7	418	97	1.44	0.19	5.90	0.016	60000	23.9	0.0
9/20/23	50.33	50.33	0.00	76	76	6.6	6.4	9.0	0.3	440	143	3.5	542	364	115	32.1	17.9	15.6	1.4	6.7	5.8	407	56	1.44	0.18	2.20	0.016	60000	24.5	0.0
9/21/23	59.15	59.15	0.00	79	79	6.7	6.3	10.5	0.3	476	252	3.0	550	518	206	25.6	16.3	14.1	0.6	6.0	5.2	366	53	1.44	0.23	3.30	0.016	60000	24.5	0.0
9/22/23	56.78	56.78	0.00	78	78	6.5	6.3	1.5	0.1	196	140	2.5	601	455	240	22.5	16.0	13.7	0.9	6.0	5.3	281	47	0.81	0.25	2.96	0.016	60000	22.6	0.0
9/23/23	53.51	53.51	0.00	78	78	6.8	6.3	0.1	0.3	132	144	3.1	594	577	270	36.9	14.9	12.9	0.9	6.4	5.3	358	51	0.00	0.12	2.96	0.016	60000	18.3	0.0
9/24/23	52.08	52.08	0.00	77	77	6.8	6.2	14.0	0.4	397	200	3.5	333	275	283	37.2	20.7	18.3	0.9	7.6	6.6	453	58	0.00	0.01	3.47	0.016	60000	16.4	0.0
9/25/23	69.59	69.59	0.00	78	78	6.8	6.2	11.0	0.6	395	250	3.5	530	319	98	33.2	18.9	16.5	0.3	7.9	6.9	371	47	1.12	0.25	3.42	0.016	60000	18.7	0.0
9/26/23	58.18	58.18	0.00	79	79	6.7	6.3	14.0	0.9	473	253	3.9	499	541	294	34.5	19.8	17.1	0.3	7.3	6.3	382	52	1.24	0.08	3.03	0.016	60000	26.2	0.0
9/27/23	78.18	78.18	0.00	79	79	6.8	6.3	18.0	4.0	593	447	5.7	412	409	828	34.1	20.2	17.8	0.9	4.8	4.3	294	61	1.37	0.29	2.64	0.016	60000	27.2	0.0
9/28/23	113.38	111.29	2.09	74	74	6.8	6.7	10.0	2.5	408	380	3.0	188	160	129	30.1	20.8	18.1	3.1	5.2	4.5	238	46	1.37	0.36	5.11	0.016	148000	17.2	0.0
9/29/23	72.59	72.59	0.00	77	77	6.5	6.4	9.0	0.2	468	143	4.4	544	280	170	32.6	21.2	18.1	0.6	6.0	5.1	272	46	1.12	0.18	5.60	0.016	197000	12.1	0.0
9/30/23	65.01	65.01	0.00	76	76	6.5	6.3	10.5	0.3	440	176	3.7	713	404	261	32.2	20.3	17.4	0.5	6.6	5.5	331	50	0.00	0.00	2.97	0.016	60000	16.5	2.0
SUM	1863.72	1861.63	2.09												829.0								23.62	4.49					2.0	
Average	62.12	62.05	0.07	77	77	6.7	6.3	9.0	1.4	343	253	3.7	471	405	286	27.6	20.2	17.4	0.9	6.8	5.9	398	58	0.79	0.15	4.37	0.016	29644	18.9	

SEWER CONNECTIONS 148556 TIMES 4 = 594224 SEWER POPULATION IND. WASTER POPULATION EQ
 148537 CUSTOMERS 405
 FLOW 405 -2567
 BOD 840038
 TSS 262523

Authorized Agent

Certification No. 28841

MORRIS FORMAN WASTEWATER JEFFERSON COUNTY, KY

Month of Sep-23

Average Flow

SETTLING TANKS	Primary		Secondary	
	Battery A	Battery B	Battery C	

Average Flow	62.09	14.82	20.27	7.17
Tanks in Series	2.00	8.0	7.9	3.7
Surface Area	38500.00	69200.00	68525.06	31970.92
Volume (MG)	4.17	7.09	7.02	3.27
Weir Length	1430.00	2868.00	2840.03	1325.04
Avg. Weir Capacity	43420.75	5168.98	7137.91	5408.47
Avg. Settling Time	1612.77	415.19	430.46	360.78
Avg. Detention Time	1.61	11.48	8.31	10.97

AERATION TANKS	Battery A	Battery B	Battery C
----------------	-----------	-----------	-----------

Volume (Gallons)	4200000	4200000	2100000
Avg. Flow (MGD)	28.73	29.50	11.53
Avg. Detention Time (h)	6.80	4.97	7.03

CHLORINE CONTACT CHAMBERS

Contact Chamber	2.0
Volume (G)	2340000
Avg. Detention Time	1.89

Remarks: BY-PASS REPORTS (See Attached)