



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

June 14, 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 May 1st through May 31st, 2023, are provided through NetDMR. The Morris Forman Water Quality Treatment Center (MFWQTC) did not meet permit for Dissolved Oxygen, 7 day Fecal Coliform, 30 day Fecal Coliform, 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
00300	Oxygen, dissolved [DO]	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
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
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
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
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

Comments**Attachments**

Name	Type	Size
MFWQTCDMRCoverLetterMay2023.pdf	pdf	42676.0
MFWQTCMOR05023.pdf	pdf	122527.0
MorrisFormanDischargeReportMay2023.pdf	pdf	14420.0

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

User: AJOP1117
 Name: Amber Pauly
 E-Mail: amber.pauly@louisvillemmsd.org
 Date/Time: 2023-06-14 12:05 (Time Zone: -04:00)

Report Last Signed By

User: SKINNER@LOUISVILLEMSD.ORG
 Name: James skinner
 E-Mail: james.skinner@louisvillemmsd.org
 Date/Time: 2023-06-14 12:35 (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 05/01/23 to 05/31/23	DMR Due Date: 06/28/23	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:	
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						=	128.0	=	176.0	19 - mg/L	0	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			
					Value NODI													
00310	BOD, 5-day, 20 deg. C	F - Primary/Preliminary Process Complete	0	--	Sample						=	150.0	=	173.0	19 - mg/L	0	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			
					Value NODI													
00530	Solids, total suspended	1 - Effluent Gross	0	--	Sample						=	254.0	=	448.0	19 - mg/L	0	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			
					Value NODI													
00530	Solids, total suspended	F - Primary/Preliminary Process Complete	0	--	Sample						=	182.0	=	248.0	19 - mg/L	0	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			
					Value NODI													
00610	Nitrogen, ammonia total [as N]	1 - Effluent Gross	0	--	Sample						=	6.5	=	7.4	19 - mg/L	0	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			
					Value NODI													
00610	Nitrogen, ammonia total [as N]	F - Primary/Preliminary Process Complete	0	--	Sample						=	10.3	=	12.6	19 - mg/L	0	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			
					Value NODI													
50050	Flow, in conduit or thru treatment plant	F - Primary/Preliminary Process Complete	0	--	Sample	=	3.1	=	4.3	03 - MGD					0	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: AJOP1117
Name: Amber Pauly
E-Mail: amber.pauly@louisvillemSD.org
Date/Time: 2023-06-14 11:40 (Time Zone: -04:00)

Report Last Signed By
User: SKINNER@LOUISVILLEMSD.ORG

Name: James skinner
E-Mail: james.skinner@louisvillemsd.org
Date/Time: 2023-06-14 12:38 (Time Zone: -04:00)

Format: Month/Day/Year
 Enter Start Date : 5/1/23

MORRIS FORMAN WATER QUALITY TREATMENT CENTER JEFFERSON COUNTY, KENTUCKY MONTH OF May-23
 KPDES PERMIT NO. KY0022411 PLANT CAPACITY 120 MGD RECEIVING STREAM-OHIO RIVER

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 Effluent	Sec. Effluent	Bypass	0.00	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	
																																	0.00
5/1/23	90.86	90.86	0.00	62	62	6.7	6.2	2.0	0.1	212	144	5.0	210	165	95	33.01	14.0	12.4	1.9	4.4	3.8	380	86	1.11	0.25	2.04	0.016	69000	3.2	0.0			
5/2/23	89.93	89.93	0.00	63	63	6.8	6.3	1.7	0.5	288	144	5.4	244	183	96	33.05	14.6	12.7	3.6	10.2	8.9	496	49	1.24	0.28	1.02	0.016	13	6.6	0.0			
5/3/23	63.71	63.71	0.00	65	65	6.7	6.4	2.8	0.1	280	54	5.0	293	264	78	32.66	13.9	12.2	3.0	4.6	4.1	469	100	1.25	0.29	2.97	0.016	20	5.2	0.0			
5/4/23	61.47	61.47	0.00	64	64	6.5	6.3	1.7	0.5	172	188	4.2	308	288	148	33.23	15.1	13.2	0.9	5.5	4.9	522	94	1.12	0.28	3.08	0.016	560	13.3	0.0			
5/5/23	71.32	71.32	0.00	63	63	6.7	6.3	11.2	3.1	385	300	2.9	378	240	165	33.39	16.1	14.3	0.6	5.3	4.6	494	92	0.95	0.28	2.35	0.016	4	14.8	0.0			
5/8/23	73.78	73.59	0.19	67	67	6.8	6.2	10.2	4.5	407	360	1.3	302	234	185	33.42	16.6	14.6	1.5	5.8	5.1	563	49	0.72	0.20	3.81	0.016	4	7.2	0.0			
5/7/23	109.52	105.56	3.96	67	67	6.9	6.2	7.5	19.0	260	536	3.1	123	112	167	33.51	15.4	13.7	8.7	4.4	3.8	462	105	0.33	0.22	3.79	0.016	4	3.1	0.0			
5/8/23	119.08	117.69	1.39	65	65	6.9	6.4	0.5	1.0	140	172	4.8	155	141	71	32.84	17.8	15.4	9.9	8.8	7.6	289	32	0.99	0.23	3.12	0.016	4	4.8	0.0			
5/9/23	125.39	122.50	2.89	69	69	6.9	6.4	1.5	1.8	176	204	2.4	144	111	84	32.52	15.2	13.2	6.3	3.4	3.1	304	88	1.15	0.28	2.12	0.016	20	6.1	0.0			
5/10/23	103.05	88.30	14.75	66	66	6.8	6.6	2.8	0.1	192	160	3.1	210	149	97	31.96	15.8	13.5	3.2	3.9	3.4	383	96	1.15	0.19	2.25	0.016	700	7.4	0.0			
5/11/23	95.09	92.70	2.39	70	70	6.8	6.8	2.8	0.1	120	248	3.5	228	191	97	30.55	16.3	14.0	3.4	7.0	5.8	352	53	1.14	0.24	1.85	0.016	60000	9.3	0.0			
5/12/23	84.71	84.71	0.00	71	71	6.8	6.3	13.0	0.2	420	160	3.7	433	275	128	32.48	17.6	14.5	0.6	5.2	4.3	419	80	0.90	0.26	2.48	0.016	4	9.4	0.0			
5/13/23	69.20	69.20	0.00	73	73	6.9	6.2	12.0	0.9	405	255	2.9	431	304	195	32.57	14.6	12.1	0.6	5.9	5.0	442	75	0.86	0.24	2.11	0.016	4	6.7	0.0			
5/14/23	96.05	95.85	0.20	71	71	6.6	6	3.8	7.5	170	420	2.9	169	196	229	32.36	17.8	15.2	2.0	5.3	4.6	427	82	0.86	0.27	1.48	0.016	380000	4.4	0.0			
5/15/23	83.23	83.23	0.00	70	70	6.8	6.2	5.0	1.2	224	204	3.6	188	124	170	32.29	17.0	14.4	2.2	4.3	3.7	366	85	1.04	0.26	2.87	0.016	116	9.3	0.0			
5/16/23	111.80	108.17	3.63	70	70	6.9	6.3	1.8	0.5	144	144	5.0	139	127	85	31.98	18.0	15.3	2.9	5.0	4.3	363	73	1.28	0.32	2.12	0.016	2000	7.6	0.0			
5/17/23	121.25	120.52	0.73	68	68	6.9	6.3	6.0	0.3	248	136	4.8	190	108	70	31.72	19.5	15.9	4.8	3.9	3.1	284	72	1.44	0.15	3.86	0.016	4	5.4	0.0			
5/18/23	94.26	94.26	0.00	69	69	6.8	6.3	1.5	0.5	140	196	3.1	234	185	126	32.11	18.4	15.4	1.2	4.8	4.1	367	76	1.34	0.13	4.29	0.016	60000	9.3	0.0			
5/19/23	84.50	84.50	0.00	70	70	6.8	6.2	10.0	0.2	384	157	3.2	412	240	196	32.83	19.3	15.9	0.4	4.9	4.1	389	79	0.50	0.07	2.37	0.016	44000	9.3	0.0			
5/20/23	120.03	119.80	0.43	70	70	7.0	6.3	6.0	3.5	220	288	6.1	148	126	152	32.48	18.5	15.5	2.7	5.7	4.8	324	57	0.86	0.02	3.70	0.016	60000	4.7	0.0			
5/21/23	110.37	110.37	0.00	68	68	6.9	6.4	5.5	0.5	176	168	3.6	160	155	114	32.10	16.9	14.1	2.6	4.0	3.3	341	84	0.85	0.00	3.51	0.016	4	2.0	0.0			
5/22/23	102.38	102.38	0.00	68	68	6.9	6.4	5.0	0.5	180	160	6.7	191	194	104	32.14	18.1	15.0	2.6	4.5	3.7	336	74	1.00	0.30	3.25	0.016	600	6.7	0.0			
5/23/23	85.49	85.49	0.00	71	71	6.8	6.3	6.5	0.1	296	72	6.4	259	172	99	32.03	18.5	15.4	1.7	4.7	4.0	376	79	1.15	0.32	2.86	0.016	37600	11.7	0.0			
5/24/23	77.32	77.32	0.00	71	71	6.8	6.3	5.0	0.1	236	52	3.0	389	189	139	26.40	14.7	12.2	1.1	4.5	3.7	334	72	0.84	0.33	2.99	0.016	60000	11.9	0.0			
5/25/23	75.87	75.87	0.00	70	70	6.8	6.2	9.8	0.1	356	70	3.5	332	385	145	41.36	15.8	13.2	0.7	5.8	4.9	488	85	1.06	0.26	2.56	0.016	4	13.1	0.0			
5/26/23	73.24	73.24	0.00	70	70	6.9	6.4	11.0	0.6	388	188	3.8	477	284	283	33.69	16.8	14.1	0.5	9.6	8.0	460	49	0.86	0.22	3.59	0.016	380	10.5	0.0			
5/27/23	67.41	67.41	0.00	70	70	7.0	6	10.0	0.4	270	165	3.4	453	421	244	35.10	18.4	15.1	0.7	5.7	4.7	488	84	0.51	0.03	2.83	0.016	60000	10.3	0.0			
5/28/23	66.01	66.01	0.00	68	68	7.0	6	10.0	0.5	264	196	3.5	499	379	179	35.05	19.2	16.0	0.4	6.0	5.1	513	84	0.29	0.00	2.19	0.016	60000	11.3	0.0			
5/29/23	62.71	62.71	0.00	70	70	7.2	6	5.0	8.0	196	384	3.1	197	254	206	34.41	17.0	14.3	1.3	6.0	5.1	441	75	0.83	0.20	2.46	0.016	4	10.8	0.0			
5/30/23	71.68	71.68	0.00	71	71	7.0	6.4	7.0	1.9	228	248	3.6	305	195	134	33.79	16.8	14.0	5.0	4.7	4.0	501	105	1.24	0.21	2.27	0.016	4	12.1	0.0			
5/31/23	66.81	66.81	0.00	74	74	6.9	6.4	3.0	0.2	212	68	3.4	284	276	74	32.99	16.9	14.1	1.1	4.4	3.6	492	118	1.32	0.30	2.43	0.016	4	16.2	0.0			
SUM	2709.5	2679.0	30.6	69	69	6.8	6.3	5.9	1.9	251	201	3.9	274	215	140	1020.0	32.80	16.8	14.2	2.5	5.4	4.8	415	78	27.636	6.129	274	8.5	0.0				
Average	87.4	86.4	3.1	69	69	6.8	6.3	5.9	1.9	251	201	3.9	274	215	140	32.80	16.8	14.2	2.5	5.4	4.8	415	78	0.97	0.21	2.73	0.016	274	8.5	0.0			

SEWER CONNECTIONS 148537 TIMES 4 = 148537

594146 SEWER POPULATION

IND. WASTER POPULATION EQ
 CUSTOMERS 405
 FLOW 405 241871
 BOD 578403
 TSS 289303

Authorized Agent

Certification No. 29841

MORRIS FORMAN WASTEWATER JEFFERSON COUNTY, KY

Month of May-23

Average Flow

SETTLING TANKS	Primary	Secondary		
	Battery A	Battery B	Battery C	

Average Flow	87.78	28.80	21.87	6.20
Tanks in Se	2.00	8.0	8.0	4.0
Surface Area	38500.00	69200.00	69192.73	34600.00
Volume (M)	4.17	7.09	7.09	3.54
Weir Length	1430.00	2868.00	2867.70	1434.00
Avg. Weir Flow	61386.01	10042.74	7626.41	4326.61
Avg. Settling	2280.05	607.80	508.66	361.01
Avg. Detention	1.14	5.91	7.78	13.71

AERATION TANKS	Battery A	Battery B	Battery C
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Volume (Gallons)	4200000	4200000	2100000
Avg. Flow (MGD)	42.06	35.20	12.49
Avg. Detention Time (t)	3.50	4.61	8.12

CHLORINE CONTACT CHAMBERS

Contact Chamber	2.0
Volume (G)	2340000
Avg. Detention	0.97

Remarks: BY-PASS REPORTS (See Attached)



KPDES #	Facility ID	Water Quality Treatment Center	Receiving Stream of Discharge	Region
KY0022411	MSD0278	MORRIS FORMAN	OHIO RIVER	NA

Facility Type	Facility ID	Facility Address	If Pump Station, Name of Station	Receiving Stream	Discharge To
Sewer Treatment Plant	MSD0278	4522 ALGONQUIN PKY	MORRIS FORMAN	OHIO RIVER	STREAM

Activity Code / Description	WO #	Ref #	Initiated on	Initiated By	Assigned To	Dish Status	Event Date	Problem Desc	Result	Completed	Condition
DISDW: DRY WEATHER DISCHARGE	3643700		5/1/2023 9:16:00 AM	BURDIN		REPAIRED - ISSUE RESOLVED	5/1/2023 12:00:00 AM	BYPASS AT WQTC	UNAUTHORIZED DISCHARGE- WATERS	05/01/23 10:30 PM	

Discharge Reporting:

Discharge Amount:	45,000,000 GAL
Cause:	BYPASS AT TREATMENT PLANT. HYPO VALVE NOT OPENED CORRECTLY. NO DISINFECTION OCCURRED FOR 45 MG.
Clean Up:	NA- DISCHARGED TO RIVER.
Control Zone:	NA.
Impact:	NA.
Repair:	VALVE FAILURE FIXED.
Public Notification:	PERMANENT SIGNS.

Notifications:

5/2/23 1:00 PM	DISNOT	EMAIL NOTIFICATION OF UNAUTHORIZED DISCHARGE SENT TO: DISCHARGENOTICES@LOUISVILLEMSD.ORG, SAYRE.DENNIS@EPAMAIL.EPA.GOV
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**IMSAST0004
Overflow Report
5/1/2023 12:00:00 AM to 5/31/2023 12:00:00 AM**

KPDES #	Facility ID	Water Quality Treatment Center	Receiving Stream of Discharge	Region
KY0022411	MSD0278	MORRIS FORMAN	OHIO RIVER	NA

Facility Type	Facility ID	Facility Address	If Pump Station, Name of Station	Receiving Stream	Discharge To
Sewer Treatment Plant	MSD0278	4522 ALGONQUIN PKY	MORRIS FORMAN	OHIO RIVER	STREAM

Activity Code / Description	WO #	Ref #	Initiated on	Initiated By	Assigned To	Dish Status	Event Date	Problem Desc	Result	Completed	Condition
DISDW: DRY WEATHER DISCHARGE	3657576		5/25/2023 5:10:00 PM	BURDIN		REPAIRED - ISSUE RESOLVED	5/1/2023 12:00:00 AM	MECHANICAL FAILURE	UNAUTHORIZED DISCHARGE- WATERS	05/23/23 05:20 PM	

Discharge Reporting:

Discharge Amount:	3,000 GAL
Cause:	PARSHALL FLUME MUD VALVE OPEN.
Clean Up:	PIPE DISCHARGE SUBMERGED- NO CLEANUP.
Control Zone:	PIPE DISCHARGE SUBMERGED- NO CONTROL ZONE.
Impact:	NA
Repair:	CLOSED VALVE.
Public Notification:	NA

Notifications:

5/25/23 1:00 PM	DISNOT	EMAIL NOTIFICATION OF UNAUTHORIZED DISCHARGE SENT TO: DISCHARGENOTICES@LOUISVILLEMSD.ORG, SAYRE.DENNIS@EPAMAIL.EPA.GOV
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