



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

December 17, 2021

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 November 1st through November 30th, 2021, are provided through NetDMR. The Morris Forman Water Quality Treatment Center (MFWQTC) did not meet permit for 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. Additionally an Emergency Design Build Project for new solids handling equipment will be installed and in service in Early 2022 at Morris Forman.

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					
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
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
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
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
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

Comments**Attachments**

Name	Type	Size
11_November_Discharge_Report_All_Services_FIN.pdf	pdf	11596.0
CoverLetterNOV2021.pdf	pdf	42044.0
MFWQTCMORNov2021.pdf	pdf	139106.0

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

User: AJOP1117
 Name: Amber Pauly
 E-Mail: amber.pauly@louisvillemsd.org
 Date/Time: 2021-12-16 10:27 (Time Zone: -05:00)

Report Last Signed By

User: SKINNER@LOUISVILLEMSD.ORG
 Name: James skinner
 E-Mail: james.skinner@louisvillemsd.org
 Date/Time: 2021-12-17 07:14 (Time Zone: -05:00)

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 11/01/21 to 11/30/21	DMR Due Date:	12/28/21	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						=	193.0	=	223.0	19 - mg/L	0	04/30 - Four 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						=	267.0	=	325.0	19 - mg/L	0	04/30 - Four 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	=	304.0	19 - mg/L	0	04/30 - Four 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						=	158.0	=	220.0	19 - mg/L	0	04/30 - Four 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						=	9.0	=	14.5	19 - mg/L	0	04/30 - Four 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						=	13.6	=	17.8	19 - mg/L	0	04/30 - Four 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	=	25.0	=	28.2	03 - MGD					0	04/30 - Four 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: 2021-12-16 10:21 (Time Zone: -05:00)

Report Last Signed By
 User: SKINNER@LOUISVILLEMSD.ORG

Name: James skinner
E-Mail: james.skinner@louisvillemsd.org
Date/Time: 2021-12-17 07:19 (Time Zone: -05:00)

Format: Month/Day/Year

Enter Start Date : 11/1/21

MORRIS FORMAN WATER QUALITY TREATMENT CENTER JEFFERSON COUNTY, KENTUCKY MONTH OF November-21
 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	prim.	final	final	88	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	Coliform #/100 ml	NH3-N mg/L	Pump. Hours
11/1/21	79.30	79.30	0.00	64	64	7.1	6.6	14.1	0.3	252	59	6.8	331	211	88	22.9	20.9	18.3	19.5	2.8	2.4	148	53	0.60	0.56	2.38	0.016	65	9.8	0.0		
11/2/21	81.64	81.64	0.00	65	65	6.9	6.6	10.3	0.1	272	76	4.9	408	265	179	20.9	27.7	24.4	8.2	3.4	3.1	170	45	0.67	0.48	3.72	0.016	60	19.1	0.0		
11/3/21	75.88	75.88	0.00	65	65	6.7	6.5	10.9	0.3	254	75	4.2	421	249	112	22.8	16.1	14.5	7.7	2.7	2.5	131	49	0.64	0.50	3.72	0.016	620	16.2	0.0		
11/4/21	71.54	71.54	0.00	63	63	6.8	6.4	12.1	0.1	252	64	5.4	420	359	162	22.6	16.3	14.4	7.1	2.9	2.5	131	44	0.64	0.53	4.63	0.016	104	15.7	0.0		
11/5/21	66.70	66.70	0.00	63	63	6.9	6.4	11.1	0.3	314	52	5.4	404	269	98	22.9	15.3	13.9	6.8	2.3	2.1	139	55	0.22	0.33	4.63	0.016	484	14.6	0.0		
11/6/21	62.40	62.40	0.00	65	65	6.7	6.4	9.5	0.3	263	140	6.1	644	458	210	23.2	16.4	14.7	2.7	3.2	2.9	157	44	0.00	0.08	3.64	0.016	288	7.6	0.0		
11/7/21	62.40	62.40	0.00	67	67	6.9	6.1	9.8	1.7	326	220	4.7	533	416	369	23.2	18.0	16.0	0.5	5.0	4.5	186	32	0.22	0.11	2.68	0.016	8200	6.8	0.0		
11/8/21	67.95	67.95	0.00	65	65	6.8	6.4	11.0	0.1	336	100	4.5	456	352	157	23.0	17.3	15.5	1.0	3.3	2.9	216	53	0.65	0.50	3.40	0.016	460	9.2	0.0		
11/9/21	67.20	67.20	0.00	66	66	6.9	6.3	12.0	0.1	372	94	4.6	658	457	197	22.8	16.6	14.9	0.9	4.3	3.9	227	48	0.78	0.63	3.57	0.016	2400	11.8	0.0		
11/10/21	64.39	64.39	0.00	69	69	6.7	6.3	11.0	0.1	308	102	4.0	428	309	173	23.8	16.5	14.4	0.5	4.3	3.8	237	52	0.72	0.71	5.19	0.016	480	13.2	0.0		
11/11/21	114.91	92.02	22.89	66	66	6.7	6.3	12.5	1.7	384	166	5.2	421	325	194	25.0	15.9	14.4	1.8	4.8	4.2	261	56	0.72	0.62	7.95	0.016	1200	14.5	0.0		
11/12/21	93.16	93.16	0.00	62	62	6.8	6.3	11.0	0.1	290	70	5.1	547	340	150	25.1	16.9	15.2	1.3	4.0	3.6	259	64	0.35	0.33	7.95	0.016	880	5.9	0.0		
11/13/21	76.22	76.22	0.00	60	60	6.9	6.4	9.0	0.1	248	45	4.7	350	227	76	25.4	18.5	16.4	2.3	4.4	3.9	289	66	0.00	0.10	4.31	0.016	220	2.9	0.0		
11/14/21	71.80	71.80	0.00	62	62	6.9	6.2	8.0	0.1	156	116	5.0	281	207	84	23.8	17.9	15.7	5.2	5.0	4.5	396	79	0.21	0.14	4.31	0.016	820	3.8	0.0		
11/15/21	70.45	70.45	0.00	61	61	6.9	6.4	10.5	0.1	284	128	5.9	318	259	86	20.0	16.7	14.9	6.4	4.2	3.8	278	67	0.63	0.57	3.05	0.016	68	12.0	0.0		
11/16/21	65.96	65.96	0.00	63	63	6.7	6.5	10.0	0.1	332	116	5.1	447	301	98	19.9	18.2	16.1	1.0	4.4	3.9	283	64	0.54	0.67	3.22	0.016	68	16.0	0.0		
11/17/21	68.46	68.46	0.00	67	67	6.6	6.2	11.0	0.2	348	94	5.2	428	293	96	20.0	18.1	16.0	1.5	2.7	2.4	360	134	0.56	0.59	3.54	0.016	1250	13.7	0.0		
11/18/21	133.42	104.47	28.95	63	63	6.9	6.3	12.0	1.5	292	232	4.4	354	242	160	20.1	17.2	15.4	4.8	3.6	3.2	223	62	0.49	0.53	6.59	0.016	150	9.6	0.0		
11/19/21	73.48	73.48	0.00	62	62	6.7	6.3	9.1	0.3	308	98	4.2	462	275	72	20.4	18.6	16.7	4.4	5.0	4.5	250	50	0.31	0.38	6.59	0.016	113	5.5	0.0		
11/20/21	70.45	70.45	0.00	62	62	6.8	6.2	9.5	0.5	277	217	4.7	532	381	154	24.5	19.8	17.7	1.4	4.6	4.2	297	65	0.00	0.07	3.89	0.016	1800	6.0	0.0		
11/21/21	128.04	100.58	27.46	59	59	6.8	6.1	10.5	5.5	252	376	3.1	367	323	285	23.9	19.6	17.4	1.7	4.9	4.4	297	61	0.10	0.09	4.89	0.016	2500	5.4	0.0		
11/22/21	85.81	85.81	0.00	59	59	7.1	6.2	7.5	0.1	224	72	5.5	288	161	65	23.0	18.8	16.9	8.4	3.2	3.0	225	74	0.79	0.54	4.89	0.016	310	3.4	0.0		
11/23/21	76.03	76.03	0.00	59	59	6.7	6.2	9.0	0.1	272	62	6.4	322	202	53	23.3	15.2	13.3	6.9	5.5	4.9	494	84	0.86	0.61	4.22	0.016	42	7.3	0.0		
11/24/21	74.14	74.14	0.00	63	63	6.8	6.5	11.5	0.3	324	148	5.3	486	321	89	23.5	15.7	13.8	3.5	6.8	6.0	491	69	0.69	0.65	2.97	0.016	5120	11.2	0.0		
11/25/21	122.36	101.60	20.76	61	61	7.0	6.4	10.1	2.1	285	243	5.4	226	179	133	23.5	16.1	14.2	6.3	3.9	3.4	302	76	0.14	0.21	3.80	0.016	164	6.3	0.0		
11/26/21	79.48	79.48	0.00	57	57	7.2	6.4	6.9	0.1	148	82	5.8	285	197	58	23.5	15.9	14.3	6.3	3.2	2.9	291	91	0.27	0.30	3.80	0.016	3600	1.2	0.0		
11/27/21	76.69	76.69	0.00	59	59	7.2	6.2	7.5	0.1	167	78	5.6	300	216	63	23.7	16.6	14.8	10.4	3.9	3.4	313	81	0.00	0.08	2.89	0.016	500	1.6	0.0		
11/28/21	70.96	70.96	0.00	62	62	7.0	6.3	7.9	0.1	74	148	5.7	369	348	145	23.5	16.9	15.7	0.4	4.0	3.4	319	79	0.30	0.28	2.89	0.016	820	4.3	0.0		
11/29/21	71.85	71.85	0.00	61	61	7.0	6.3	11.5	0.2	236	156	5.8	308	207	101	24.1	17.9	16.0	3.5	4.7	4.4	349	75	0.54	0.55	3.46	0.016	384	4.9	0.0		
11/30/21	71.66	71.66	0.00	62	62	6.8	6.2	14.1	0.1	346	128	6.4	321	186	64	24.6	16.5	14.7	9.3	5.4	4.7	332	61	0.60	0.65	3.46	0.016	64	8.2	0.0		
Sum	2394.73	2294.67	100.06	1882	1882	205.9	189.9	310.9	16.8	8196	3757	155.1	12115	8535	3971	688.9	528.1	470.6	141.5	122.4	109.3	8051	1933	13.24	12.38	126.23				0.0		
Average	79.82	76.49	25.02	63	63	6.9	6.3	10.4	0.6	273	125	5.2	404	285	132	23.0	17.6	15.7	4.7	4.1	3.6	268	64	0.44	0.41	4.21	0.016	420	8.9			

SEWER CONNECTIONS 148353 TIMES 4 = 593412 SEWER POPULATION IND. WASTER POPULATION EQ CUSTOMERS 388
 FLOW 170171
 BOD 1006241
 TSS 268502

Authorized Agent

Certification No. 29841

MORRIS FORMAN WASTEWATER JEFFERSON COUNTY, KY

Month of Nov-21

Average Flow

SETTLING TANKS	Primary	Secondary		
	Battery A	Battery B	Battery C	

Average Flow	80.18	30.54	16.53	6.34
Tanks in Service	4.00	7.0	7.8	4.0
Surface Area	77000.00	60550.00	67283.15	34600.00
Volume (MG)	8.33	6.20	6.89	3.54
Weir Length	2860.00	2509.50	2788.56	1434.00
Avg. Weir Capacity	28033.64	12168.56	5927.05	4419.02
Avg. Settling Time	1041.25	663.90	396.96	271.59
Avg. Detention Time	2.49	4.87	10.01	13.42

AERATION TANKS	Battery A	Battery B	Battery C
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Volume (Gallons)	4200000	4200000	2100000
Avg. Flow (MGD)	40.20	26.71	9.40
Avg. Detention Time (h)	3.30	6.10	7.95

CHLORINE CONTACT CHAMBERS

Contact Chamber	2.0
Volume (G)	2340000
Avg. Detention Time	0.92

Remarks: BY-PASS REPORTS (See Attached)



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

Facility Type	Facility ID	Facility Address	If Pump Station, Name of Pump Station:	Receiving Stream	Discharge to
SPLSewer Treatment Plant	MSD0278	4522 ALGONQUIN PKY		OHIO RIVER	STREAM

<u>Activity Code / Description</u>	<u>WO #</u>	<u>Ref No</u>	<u>Initiated</u>	<u>Initiated By</u>	<u>Assigned To</u>	<u>Disch Status</u>	<u>Event Date</u>	<u>Problem</u>	<u>Result</u>	<u>Completed</u>	<u>Condition</u>
: DISDW: DRY WEATHER DISCHARGE	3444619		11/16/2021	PAULY	PAULY	REPAIRED - ISSUE RESOLVED	12/07/2021	BYPASS AT WQTC	UNAUTHORIZED DISCHARGE- WATERS	11/16/21 08:35 AM	

Discharge Reporting:

Discharge Amount:	801,500 GAL
Cause:	DECHLORINATION NOT IN SERVICE. VALVED OUT.
Clean Up:	NONE NEEDED.
Control Zone:	NONE NEEDED-CLOSED AREA.
Impact:	NO VISUAL IMPACT OBSERVED.
Repair:	VALVED SODIUM BISULFITE BACK IN AND RESTORED FLOW OF DECHLORINATION.
Public Notification:	PERMANENT SIGN AT OUTFALL.

Notifications:

11/17/21 1:00 PM	DISNOT	EMAIL NOTIFICATION OF UNAUTHORIZED DISCHARGE SENT TO:DISCHARGENOTICES@LOUISVILLEMSD.ORG, SAYRE.DENNIS@EPAMAIL.EPA.GOV
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Total Facilities Printed: 1

Total Work Orders Printed: 1