



210 SOUTH CHURCH STREET
MOUNTAIN CITY, TENNESSEE 37683
TELEPHONE (423) 727-8005 • FAX (423) 727-2925
www.mountaincitytn.org

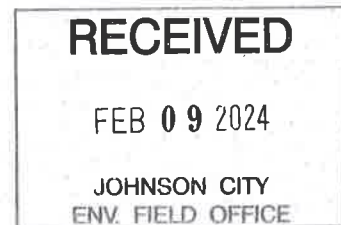
TDEC
Division of Water Resources
2305 Silverdale Road
Johnson City, TN 37601

Attn: Sandra Vance

The purpose of this letter is to submit the MOR/DMR for The Town of Mountain City WWTP, Permit #TN0024945, for the month of January 2024.

During the month of January, we had the following Violations:


1-TSS Monthly Average LBS
1-TSS Weekly Average LBS
1-TSS Monthly Average MG/L
1-TSS Weekly Average MG/L
3-TSS Daily Maximum MG/L
1-CBOD Weekly Average LBS
1-CBOD Weekly Average MG/L
1-CBOD % Removal Daily Maximum
1-TSS % Removal Daily Maximum
1-TSS % Removal Monthly Average Minimum



These were due to a two-day rainfall event on January 8th and January 9th, 2024 resulting in a total rainfall of 1.7". The total rainfall resulted in Hydraulically overloading the WWTP. Efforts to decrease I&I are ongoing in the collection system.

If you have any questions, please don't hesitate to call me at 423-727-8005 or Chris Atwood, WWTP Manager at 423-727-6655.

Sincerely,


Jerry Jordan, Mayor

TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER POLLUTION CONTROL



REPORT OF OPERATION OF WASTEWATER TREATMENT
PLANT Mountain City S.W.P.
COUNTY Johnson
MONTH OF JANUARY 2024

DATE	RAINFALL (0.1")	5 DAY CBOD / BOD				HOURS BYPASSED	TEMPERATURE		AMMONIA NITROGEN					SUSPENDED SOLIDS				SETTLABLE SOLIDS		DISSOLVED OXYGEN		pH		FINAL EFFLUENT							
		INFLUENT FLOW (MGD)	INFLUENT MAX FLOW (MGD)	EFFLUENT FLOW (MGD)			INFLUENT (°C)	EFFLUENT (°C)	INFLUENT (mg/L)	EFFLUENT (mg/L)	EFFLUENT (POUNDS)	PERCENT REMOVAL	INFLUENT (mg/L)	EFFLUENT (mg/L)	EFFLUENT (POUNDS)	PERCENT REMOVAL	INFLUENT (mg/L)	EFFLUENT (mg/L)	INFLUENT (mg/L)	EFFLUENT (mg/L)	INFLUENT (STANDARD UNITS)	EFFLUENT (STANDARD UNITS)	TOTAL CHLORINE (RESIDUAL mg/L)	GALLONS BLEACH	GALLONS DECHLORINATE	F-Co. li.					
1		.932	1.52	.798		11.5	10.5												.5	4.5	4.8	8.7	7.3	7.1	1.30	BDL	19	30	137		
2	.1	9.45	3.37	.814		11	10	90	8	54	97		.1	1	144	29	197	80	9	1	4.1	9.4	7.3	7.1	1.04	BDL	40	31	344		
3		.917	3.34	.827		12	10	98	6	41	94		.1	1	112	20	138	82	6.5	6.5	3.6	9.2	7.0	7.1	22.20	BDL	25	30	52		
4		.875	4.15	.766		11	10	97	11	70	89		.1	1	125	22	140	82			3.6	9.4	7.3	7.5		BDL	25	46			
5		.858	2.29	.789		11	9														5.1	9.5	7.3	7.5		BDL	21	45			
6	.7	1.117	2.27	1.000																								20	46		
7		1.291	2.81	1.151															2.8	4.5	8.3	9.2	7.3	7.4	.84	BDL	23	46	31		
8	.3	1.223	2.26	1.117		9.5	10						.9	13	68	107	1530	57	3	6.5	7.4	8.5	7.2	7.4	1.20	BDL	42	53	12		
9	1.4	2.789	3.8	1.715		11	10	33	16	229	52		.9	13	15	161	3378	973	6.5	6.5	7.9	6.5	7.3	7.3		BDL	67	61			
10		2.789	3.91	2.516		10	10	18	16	336	11		.1	1	53	164	2755	209	6.5	6.5	7.2	9.6	7.4	7.4		BDL	64	61			
11		2.223	3.84	2.014		10.5	9	42	7	118	83		.4	7							7.1	15.0	7.4	7.5	2.13	BDL	43	28	2		
12	.2	1.422	3.52	1.745		10	9.5																					42	28		
13		1.753	3.4	1.577																									42	31	
14		1.619	3.67	1.466															2	6.5	5.2	8.7	7.4	7.5	22.00	BDL	35	29	3		
15	.8	1.302	3.64	1.176		10	9						.1	1	83	13	116	84	3	6.5	5.8	8.7	7.3	7.4	2.03	BDL	22	24	61		
16	.1	1.338	2.26	1.071		10	9	39	4	36	90		.1	1	106	7	69	93	6.5	6.5	6.3	9.4	7.3	7.4	1.24	BDL	20	23	1		
17		1.584	3.52	1.189		9	7	64	22	220	297		.1	1							6.1	9.3	7.3	7.5		BDL	19	21			
18	.1	.821	3.52	.739		10	7	64	5	31	92		.1	1	97	5	31	95			5.6	6.4	7.2	7.3		BDL	17	24			
19	.1	1.136	3.44	.743		9	8.5																					17	21		
20		1.084	2.15	.710																									16	11	
21		1.058	1.95	.607															1	6.5	6.2	6.0	7.4	7.4	1.13	BDL	13	18	3		
22		1.044	2.12	.957		10	8												10	6.5	5.0	9.4	7.3	7.5	.86	BDL	16	20	61		
23		1.123	3.53	1.007		9.5	8	49	3	25	94		.3	2	105	6	50	94	5	6.5	5.1	9.4	7.2	7.4	1.22	BDL	16	22	61		
24	.2	1.908	3.44	1.680		9.5	8	69	5	70	93		.1	1	100	9	126	91	5	6.5	7.7	7.7	7.4	7.4		BDL	32	40			
25	.4	1.969	3.35	1.761		10	9	32	5	73	84		.1	2	56	8	118	86			7.9	7.0	7.4	7.4		BDL	31	57			
26		1.856	3.62	1.637		9	10																						32	28	
27	.5	2.228	3.55	1.975																									40	53	
28	.2	3.124	3.65	2.727															6.5	6.5	7.0	6.5	7.4	7.5		BDL	40	36			
29		2.454	3.6	2.207		9	9												3	6.5	7.2	8.0	7.4	7.4	1.10	BDL	32	46	5		
30	.3	1.852	3.61	1.661		9	9	50	5	69	92		.1	1	50	5	69	90	6.5	6.5	7.3	7.5	7.5	1.2	BDL	32	47	23			
31		2.297	3.55	2.045		9.5	9	38	4	68	90		.1	2	44	5	85	89			7.2	8.2					922	1095			
TOTAL		49.006		42.237						1240				35			8802														
AVERAGE		1.581		1.362		10	9	56	7	89	88		.2	2	83	40	629	52			7.9	10	7.5	7.5							
MAXIMUM		3.124	4.15	2.777		12	10.5	98	16	336	297		.9	13	144	164	3378	95			3.6	6.4	7.0	7.1							
MINIMUM		.821		.607		9	7	18	22	220	11		.1	1	15	5	31	973			6.5	6.5	7.0	7.1							

REMARKS CBOD DID NOT MEET CRITERIA VALUES ON: 1/4, 1/5, 1/31
CBOD SEED DID NOT MEET CRITERIA ON: 1/11, 1/24, 1/31
OUR MDL FOR T.P.S. = .04 FOR NH3-N = .1

T.NIT = 9.11 MG/L. 63 LBS. T.P.KOS = 1.28 MG/L 9 LBS 1/3/24
CERTIFIED OPERATOR SIGNATURE Clinton E. [Signature] CERTIFICATION NO. 2481 GRADE III

DATE	RECEIVING STREAM ANALYSES																UNIT OPERATIONS*																		SLUDGE DISPOSAL	
	BOD		G.S.		SETT.S.		D.O.		pH		TEMP.		FECAL		NH ₄		MLSS	MLSS	P.O.	30 min. Sett.	Est. Q. U.A.S.	A.H.T. P.T.O.	A.H.T. Temp °C	A.H.T. H	A.H.T. T.S.S. %	Pres. %	Q. Gal. / Day	Pres. % T.S.S.	59	60	61	62	63	64	QUANTITY OF WET SLUDGE GENERATED:	
	ABOVE	BELOW	ABOVE	BELOW	ABOVE	BELOW	ABOVE	BELOW	ABOVE	BELOW	ABOVE	BELOW	ABOVE	BELOW	ABOVE	BELOW																			GALLONS/MONTH	
	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48																			GALLONS/MONTH	
1																	2690	3.1	920	5000															2690	
2																	2960	3.6	890	6000					7.2	2.1	6449	13							2960	
3																	2860	5.1	900	10500																2860
4																		3.6	897	11600	.2	7													9416	
5																		800	1000																3100	
6																		810	9000																12951	
7																	2580	5.0	930	10000	.2	7													13997	
8																	49	800	10000		.2	7	7.2	1.0										1755		
9																	2116	4.5	750	10000	.2	8													16380	
10																		5.6	900		.2	6.5												3133		
11																	257	5.1	680	12000	.2	7.5														
12																			680	12000																
13																			680	12000																
14																		5.0	680	15000	.2	8													4408	
15																	2308	5.4	690	12000	.2	6	7.4											12261		
16																	2232	5.2	770	10000	.2	7			1.3		10415	28						6355		
17																		5.4	850	8000	.3	4.5														
18																	2274	3.8	750	12000	.4	3														
19																			820	18000																
20																			750	12000																
21																	2080	5.2	640	21000															3016	
22																		5.2	750	6000	.2	2.5	6.6	1.0										9857		
23																	2392	5.3	820	9000	.2	3													10352	
24																	2294	5.4	800	9000	.2	9													10017	
25																		4.8	680	10000	.2	10.5													11147	
26																			540	10000															6051	
27																			550	10000															5452	
28																		2.7							7.3	1.8								13614		
29																	1878	5.6	420		.2	7													7527	
30																	1892	5.4	550		.2	7.5													4033	
31																	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
TOT																																				
AVE																	2310	5.6	900		.4	10.5	7.4	2.1										13548		
MAX																	1878	2.2	420		.2	3	6.6	1.0										3016		
MIN																																				

QUANTITY OF WET SLUDGE GENERATED:
_____ GALLONS/MONTH

QUANTITY OF WET SLUDGE DISPOSED OF:
_____ GALLONS/MONTH

% SOLIDS: _____

WEIGHT OF SLUDGE (DRY) GENERATED:
_____ METRIC TONS/MONTH

WEIGHT OF SLUDGE (DRY) DISPOSED OF:
_____ METRIC TONS/MONTH

$(\frac{\text{GALLONS} \times 8.34}{2205}) \times (\frac{\% \text{ SOLIDS}}{100}) = \text{METRIC TONS}$

VOLATILE SOLIDS REDUCTION:
*FROM WASTE SLUDGE TO DISPOSAL

ULTIMATE METHOD OF DISPOSAL:
10.4 P.T. LAND FILL

DIGESTER DETENTION TIME: _____

METHOD OF DIGESTION: _____

LIST DAILY SLUDGE DATE IN COLUMNS TO LEFT

*UNIT OPERATIONS - THE ANALYSES BELOW SHOULD BE PERFORMED WHERE APPLICABLE

AERATION OR REAERATION
SUSPENDED SOLIDS (MLSS)
SETTLABLE SOLIDS (SVI)
SLUDGE VOLUME INDEX (SVI)
DISSOLVED OXYGEN (DAILY AVERAGE)
TEMPERATURE
SLUDGE AGE, FOOD TO: MICROORGANISM RATIO
OR MEAN-CELL RESIDENCE TIME

AEROBIC DIGESTER
SUSPENDED SOLIDS (MLSS)
SETTLABLE SOLIDS (1000 ML)
DISSOLVED OXYGEN (DAILY AVERAGE)
TEMPERATURE
PERCENT VOLATILE SOLIDS

ANAEROBIC DIGESTER
TEMPERATURE
pH
VOLATILE ACIDS
ALKALINITY
PERCENT VOLATILE SOLIDS (OF SLUDGE)

SLUDGE HANDLING
HOURS OPERATED
VOLUME OF SLUDGE REMOVED
POUNDS OF WET SLUDGE PRODUCED
MOISTURE CONTENT
CHEMICALS USED

RECEIVED

FEB 09 2024

JOHNSON CITY
ENV. FIELD OFFICE