

WaterWorks CABOT

One City Plaza, Suite B
P.O. BOX 1287
Cabot, Arkansas 72023
Phone 501 605-1740
Fax 501-605-1743

August 9, 2012

Arkansas Department of Environmental Quality
Miles Johnson, NPDES Enforcement Section
5301 Northshore Drive
Little Rock, Arkansas 72118-5317

RE: Cabot WaterWorks Effluent Ammonia violations

Mr. Johnson,

As per our phone conversation last week, Cabot WaterWorks has been waiting to receive our contract lab results for the month of July 2012. I am pleased to report that our Effluent Ammonia levels are within the NPDES permit requirements for the month of July. On the following page is a table providing daily ammonia results as well as the other permit monitoring requirements for Cabot.

The previous ammonia violations are still being investigated. Cabot has not had any significant changes in operation that would explain the violations. After the initial violations, we reduced MLSS from 4000 down to 2500 mg/l during April, yet the problem persisted. We also increased oxygen by 25%. We suspect the high ammonia levels are due to either a toxic shock to the biomass or a high ammonia slug load entering the plant influent. With this in mind we began monitoring influent ammonia on July 10th. We intended to start monitoring influent in June though had a miscommunication with our contract lab. Note: the influent ammonia spike on July 31. If we see additional spikes we will begin looking upstream at possible sources.

Looking forward, we are reviewing new equipment to monitor ammonia real-time at the Plant Influent. Until we make a decision we will have influent ammonia monitored by our contract lab. We welcome any advice regarding ammonia monitoring equipment.

In regards to our progress at eliminating sanitary sewer overflows (SSO's), I have attached a list of completed projects to correct I&I and/or infrastructure deterioration. Following this table is a historical summary of SSO's. We use historical SSO's as a basis for conducting sewer evaluations to identify deficient and deteriorated sewer mains. From this data we have prepared a Master Plan for the Sewer Collection System. This Plan is continually updated as we correct problems and identify new issues, (a Living Document). Hopefully this will answer concerns on progress with SSO's.

We do ask for time to identify the source of the ammonia violations. Please feel free to contact me.

Sincerely



Tim D. Joyner P.E.
General Manager



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Cabot Waterworks - Arkansas - WASTEWATER PROCESS CONTROL PROGRAM														
DATE:	Rain Fall (in.)	Influent			Mixed Liquor Suspended Solids (MLSS) (mg/l)	EFFLUENT Analytical								
		BOD (mg/L)	NH ₃ -N (mg/L)	TSS (mg/L)		Flow Meter (MGD)	TSS	CBOD ₅ (mg/L)	DO	Temp °C	pH	NH ₃ -N (mg/L)	Fec.Col	Alkalinity
07/01/12					2,776	1.64								
07/02/12	0.0	216.2		244.0	2,867	1.49	2	3.5	7.31	29.0	7.42	6.10	4	140
07/03/12	0.0	182.4		98.0	2,958	1.44	2	2.4	7.27	27.0	7.38	5.50	10	180
07/04/12		211.2		60.0	2,660	1.56	2	2.4	6.36	27.0	7.11	3.80	4	
07/05/12	0.0	249.0		196.0	2,362	1.56	1	2.4	7.22	28.0	7.34	4.00	10	150
07/06/12		140.0		180.0	2,522	1.52	2	2.4	7.59	27.0	6.89	1.84	4	120
07/07/12					2,681	1.58						7 Day Avg	4.2	
07/08/12					2,841	1.55								
07/09/12	0.0	150.0		162.0	3,000	1.51	1	4.4	7.07	28.0	7.44	3.60	4	120
07/10/12	0.0	180.0	36.0		2,958	1.54	2	2.4	7.06	28.0	7.39	2.10	12	200
07/11/12	0.2	140.0	40.0		2,614	1.64	2	2.4	7.32	28.0	7.22	0.29	4	140
07/12/12	0.0	160.0	42.0		2,800	1.52	2	2.4	7.30	27.0	7.27	0.13	4	120
07/13/12	0.0	32.8	36.4		2,740	1.47	2	2.4	7.38	26.0	7.24	0.78	4	120
07/14/12					2,781	1.59						7 Day Avg	1.4	
07/15/12					2,821	1.65								
07/16/12	0.0	48.8	36.0		2,862	1.48	3	4.7	7.39	27.0	7.27	0.64	12	160
07/17/12	0.0	34.0	36.0		2,650	1.43	1	2.4	7.27	30.0	7.41	0.69	8	
07/18/12		40.4	38.0		2,438	1.41	3	3.4	6.86	33.0	7.44	0.66	4	
07/19/12	0.0	36.0	38.4		2,226	1.52	2	3.6	7.24	28.0	7.32	0.58	200	120
07/20/12	0.0	62.1	42.0		2,431	1.41	1	5.2	7.23	29.0	7.26	0.44	20	120
07/21/12					2,636	1.55						7 Day Avg	0.6	
07/22/12					2,841	1.62								
07/23/12	0.0	31.3	63.0		3,046	1.52	3	3.2	7.17	28.0	7.28	0.10	10	120
07/24/12	0.0	31.6	41.0		2,884	1.43	4	2.8	6.84	30.0	7.35	0.10	10	120
07/25/12	0.0	42.7	34.0		2,722	1.44	2	2.6	7.11	32.0	7.48	0.20	4	
07/26/12	0.0	36.6	39.0		2,560	1.49	2	2.6	7.26	29.0	7.25	0.26	8	120
07/27/12	0.0	34.0	43.0		2,512	1.35	2	3.7	7.33	27.0	7.24	1.20	10	
07/28/12					2,464	1.57						7 Day Avg	0.4	
07/29/12					2,416	1.61								
07/30/12	0.0	39.4	30.0		2,368	1.46	1	2.3	7.18	28.0	7.24	0.78	4	110
07/31/12	0.0	30.4	139.6		2,408	1.29	1	2.4	7.0	28.0	7.26	0.52	10	120
												30 Day Avg	1.6	

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Project ID	Completed Wastewater Projects	Amount
06N001	Kerr Station Basin I&I Improvment	\$ 90,696
06N02	380 Ft 8 In To Vet Center	\$ 376
07N001	G & W 8 In Sewer	\$ 7,891
08N01	15 In Pvc Kerr Station Survey	\$ 3,555
08N02	Linden Street 8 In Sewer Replacement	\$ 3,423
09N01	Greystone 12 Inch FM Replacement	\$ 40,430
09N02	Gum 8 Inch Sewer Replacement	\$ 13,877
09N03	Pine Crest Sewer Improvements	\$ 29,307
09N04	4 Mile Creek Gravity Interceptor (Engineering & Survey)	\$ 76,391
09N05	Mockingbird 360ft 8PVC	\$ 3,147
09N06	Jackson St Swrline Replacemnt	\$ 6,455
10N01	North Polk	\$ 19,523
10N03	So Bound Ramp Rockwood	\$ 10,288
10N04	HS Lift Station To Gravity	\$ 80,364
10N05	Oak Lane Trailer Park Manhole	\$ 5,664
10N06	Corbin Cr Gravity Sewer	\$ 2,963
10N07	Walnut St Sewer Main	\$ 9,601
10N08	8in Sewer Main King St MH 748 742	\$ 9,786
10N09	4430 South First St Sewer Ext-Survey Only	\$ 988
11N01	I And I Repair And Maintenance	\$ 24,185
11N02	Lincoln 2 Bellamy Pipe Burst	\$ 41,822
11N04	Myrtle St Mh 891 - Mh 892	\$ 18,449
11N05	E Main-Linden 195 Ft. 8 In PVC	\$ 13,451
11N06	Sewer Repl 10 In Myrtle And Grant	\$ 15,900
12N01	I & I Repair And Maintenance	\$ 3,511
12N02	Replacement 10in Sewer Olive-Locust Man Hole 702-707	\$ 19,045
12N03	Abandon Sunland Lift Station	\$ 28,381
12N04	Connect Greystone FM To Greystone Commercial	\$ 13,426
12N05	Abandon West Oak Lift Station	\$ 3,193
12N06	Ivanhoe ST To Hwy89 2200ft_ 10in Sewer	\$ 2,430
12N07	Chalet 6 IN Sewer Main Replacement Man Hole 1069_ 1071	\$ 25,704
12N08	Main St To Elm 10IN Sewer Main Replacement MH 688 687	\$ 15,643

Grand Total: \$ 639,866

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Cause	Cabot Sanitary Sewer Overflows by Year								Totals
	2005	2006	2007	2008	2009	2010	2011	2012	
Air relief valve Failure			2			1			3
Blockage, Debris	27	22	20	34	11	18	16	12	160
Contractor hit line	2	5	1	1	1	1		1	12
Contractor left sewer plug									0
Customer Service Line			1	3		2	2		8
Equipment Failure	8	15	9	7	5	3	5	5	57
Grinder pump failure			1	1	1	2	1	1	7
Heavy rainfall	43	10	25		2		5	3	88
Line break	4	6	7	12	11	15	14	4	73
Power Failure	8	3	1	1		1	1	1	16
Roots		4	7	1			1		13
Vandalism		1					1		2
Grand Total	92	66	74	60	31	43	46	27	439

**MAP(S)/PLAN(S) SCANNED IN
SEPARATE FILE**

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