WOODARD &CURRAN

Monthly Operating REPORT

February 2016

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So. Sangamon

March 15, 2016

woodardcurran.com

COMMITMENT & INTEGRITY DRIVE RESULTS

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EXECUTIVE SUMMARY

Safety is the number one priority at Woodard and Curran. We continue to provide monthly training for employees at the plant, provide weekly safety updates and safety videos are assigned to all employees. There were no lost time accidents in the month of February. Joanna Wallace continues to monitor the progress of the Safety Audit from Portland, Maine. Approximately 80 percent of the items identified in the safety audit performed in May 2015 have been completed.

The finished water quality was within regulatory limits and all reporting and sampling requirements were met for February.

We continue to experience a slight exceedance of the maximum allowable Chlorine residual allowed by the NPDES discharge permit.

The plant produced 26.3 million gallons of finished water for the month of February.

For the month of February 2016, there were 23 inspections, 28 preventative and 1 corrective maintenance activities completed. There were two alarms that required personnel at the plant after normal operating hours. There were two customer inquiries for the month.

After 10 months, financial summaries indicate costs are $57,888 under budget for the year to date.

Woodard and Curran is working with Meco Engineering to update and prioritize the Capital Improvement Plan. The CIP is a planning document that includes all projects anticipated to exceed $5,000 in cost over the next five years. The CIP is an ongoing process and will be refined from time to time as projects are completed and new issues are identified. Engineering has been completed on the project to reduce chlorine from the lagoon discharge and submitted to the Illinois EPA for approval. Once approved, a construction permit will be issued.

1. SAFETY

1.1 SAFETY TRAINING

Woodard and Curran continues to provide safety training for personnel at the plant.

In addition, weekly safety updates are emailed to the plant and safety videos are assigned to all employees and are required to be completed.

1.2 LOST TIME ACCIDENTS

There were no lost time accidents in the month of February 2016.

1.3 SAFETY AUDIT

The next conference call regarding the Safety Audit is scheduled for early March 2016. To date, approximately 80 percent of the items identified have been addressed.

1.4 MISCELLANEOUS SAFETY

There are no miscellaneous safety issues for February 2016

2. COMPLIANCE, FLOWS, AND LOADINGS

2.1 COMPLIANCE

The finished water quality was within regulatory limits and all reporting and sampling requirements were met for February.

We continue to experience a slight exceedance of the maximum allowable Chlorine residual allowed by the NPDES discharge permit.

As part of the agreement between the South Sangamon Water Commission and the Springfield Metropolitan Sanitary District, a Semi-Annual Report regarding the discharged materials to the sanitary district must be filed with the agency. The report has been completed and forwarded to the Sanitary District.

Woodard and Curran began pilot testing for the use of Sodium Permanganate on February 17, 2016. Initial testing results are promising and manganese levels have dropped significantly on the finished water leaving the plant.

On February 22, 2016, the Illinois Environmental Protection Agency sent a letter to the South Sangamon Water Commission directing them to conduct a Composite Correction Program (CCP). The CCP is requested in light of ongoing consumer concerns expressed by residents within the Chatham community water supply distribution system. The CCP will be performed by a third-party contractor, Curry and Associates, on behalf of the commission. A CCP consists of two elements, a Comprehensive Performance Evaluation (CPE) and a Comprehensive Technical Assistance (CTA):

- The CPE is a thorough review and analysis of the Commission's plant, specifically as to the plant's performance-based capabilities and associated administrative, operation and maintenance practices.

- The CTA is the performance improvement phase that will be implemented if the CPE results indicate improved performance potential.

The CPE is anticipated to take 30 days to complete.

2.2 INFLUENT FLOWS AND LOADINGS

The total water produced for the month of February 2016 was 32.3 MG and the influent parameters were all within the normal range. The influent flow and loadings are summarized below in Table 2.2

Table 2.2 Influent Concentrations and Flow

Day	pH	Temp	FE	Mn	Fluoride	Hardness	Alkalinity	Well Flow Gals (k)
1	7.49	14.5	0.71	0.203	0.21	360	276	1.121
2	7.57	14.7	0.71	0.208	0.26	346	282	1.055
3	7.50	13.9	0.68	0.199	0.22	360	282	1.068
4	7.59	13.9	0.72	0.202	0.25	360	286	1.057
5	7.69	13.4	0.73	0.214	0.21	364	280	1.118
6	7.66	13.4	0.70	0.203	0.22	364	280	1.145
7	7.60	13.8	0.74	0.200	0.26	366	280	1.158
8	7.55	13.4	0.73	0.210	0.20	360	280	1.183
9	7.76	12.5	0.74	0.194	0.13	362	282	1.078
10	7.62	12.7	0.82	0.210	0.18	360	280	1.106
11	7.68	12.6	0.72	0.189	0.16	248	292	0.737
12	7.76	13.6	0.80	0.192	0.22	246	296	1.444
13	7.57	13.6	0.71	0.203	0.22	360	276	0.946
14	7.73	12.3	0.76	0.194	0.24	364	284	1.190
15	7.77	13.0	0.09	0.200	0.18	362	282	0.853
16	7.59	13.4	0.79	0.231	0.22	360	280	1.486
17	7.64	13.4	0.68	0.194	0.20	360	280	1.115
18	7.68	13.6	0.67	0.350	0.19	360	280	1.102
19	7.49	13.9	0.71	0.410	0.25	360	284	1.088
20	7.51	13.8	0.71	0.408	0.12	360	280	1.193
21	7.49	13.6	0.68	0.407	0.21	364	280	1.217
22	7.70	12.8	0.91	0.422	0.14	358	282	1.161
23	7.54	13.4	0.81	0.396	0.23	360	278	1.065
24	7.54	13.4	0.79	0.405	0.16	360	280	1.093
25	7.48	13.0	0.71	0.385	0.20	356	280	1.025
26	7.42	13.2	0.71	0.479	0.21	362	284	1.113
27	7.53	13.3	0.87	0.414	0.16	360	282	1.063
28	7.57	13.7	0.58	0.350	0.38	368	288	1.171
29	7.72	14.1	0.62	0.354	0.22	360	282	1.200
30	-	-	-	-	-	-	-	-
31	-	-	-	-	-	-	-	-
Max.	7.77	14.7	0.91	0.479	0.38	368	296	1.486
Min.	7.42	12.3	0.09	0.189	0.12	246	276	0.737
Avg.	7.60	13.4	0.71	0.284	0.21	353	282	1.116
Total	-	-	-	-	-	-	-	32.351

Note: Per IEPA, subsequent Raw Water Samples will be pulled from another location

2.3 EFFLUENT CONCENTRATIONS

The facility produced 26.3 MG during the month with a daily average of 0.907 MG and a min/max of 0.6/1.23 MG.

Table 2.3 Finished Water Quality

Date	Free Cl2	Total Cl2	pH	Temp	Iron	Manganese	Fluoride	Hardness	Alkalinity	Phosphate
1	1.5	1.6	8.06	13.20	0.01	0.037	0.76	120	264	0.87
2	1.5	1.5	8.05	13.00	0.01	0.052	0.84	124	260	0.77
3	1.5	1.6	8.02	12.70	0.01	0.038	0.82	124	264	0.68
4	1.4	1.5	8.04	12.80	0.01	0.035	0.67	120	268	0.49
5	1.5	1.6	8.03	12.60	0.01	0.039	0.70	122	264	0.72
6	1.4	1.5	8.03	13.10	0.01	0.038	0.62	120	276	0.82
7	1.4	1.5	8.03	12.80	0.01	0.037	0.77	118	270	0.76
8	1.4	1.5	8.04	12.40	0.01	0.037	0.79	120	262	0.72
9	1.1	1.4	7.91	12.50	0.01	0.031	0.70	118	284	0.75
10	1.4	1.5	8.03	11.60	0.01	0.044	0.75	120	262	0.75
11	1.4	1.5	7.86	11.80	0.01	0.019	0.61	118	264	0.69
12	1.4	1.4	8.12	13.00	0.02	0.028	0.73	120	162	0.89
13	1.2	1.3	8.04	12.00	0.01	0.024	0.89	120	264	0.91
14	1.3	1.3	7.65	12.40	0.01	0.016	0.20	122	268	0.75
15	1.3	1.3	7.80	13.00	0.00	0.016	0.67	120	266	0.87
16	1.4	1.4	7.96	12.50	0.01	0.016	0.69	118	268	0.85
17	1.4	1.4	7.94	12.80	0.01	0.011	0.38	124	266	0.85
18	1.0	1.1	8.08	12.90	0.01	0.025	0.32	120	276	0.80
19	1.0	1.0	7.81	13.50	0.01	0.015	0.60	120	264	0.75
20	1.3	1.4	7.81	13.20	0.00	0.014	0.69	120	266	0.81
21	1.4	1.4	7.83	13.10	0.01	0.019	0.74	120	260	0.80
22	1.1	1.1	7.98	13.70	0.01	0.012	0.17	122	264	0.86
23	1.4	1.5	7.83	12.80	0.01	0.015	0.79	118	264	0.76
24	1.2	1.3	7.99	12.70	0.01	0.009	0.53	120	268	0.51
25	1.2	1.3	7.89	12.50	0.01	0.014	0.69	118	264	0.67
26	1.2	1.3	7.93	12.70	0.01	0.050	0.69	118	260	0.75
27	1.0	1.0	7.82	13.40	0.02	0.019	0.99	118	266	0.80
28	1.2	1.3	7.96	14.40	0.00	0.000	0.79	116	272	0.81
29	1.3	1.3	8.01	14.40	0.01	0.015	0.58	120	260	0.66
30	-	-	-	-	-	-	-	-	-	-
31	-	-	-	-	-	-	-	-	-	-
Max	1.5	1.6	8.12	14.40	0.02	0.052	0.99	124	284	0.91
Min	1.0	1.0	7.65	11.60	0.00	0.000	0.17	116	162	0.49
Avg	1.3	1.4	7.95	12.88	0.01	0.025	0.66	120	263	0.76

2.4 LAGOON DISCHARGE CONCENTRATIONS

The results for the NPDES lagoon discharge permit are summarized below.

Table 2.4 Weekly Grab Sample Analysis Results

Lagoon Effluent Results						
Date	**Fe (mg/l)**	**Mn (mg/l)**	**Chloride (mg/l)**	**Cl^2 (mg/l)**	**pH (S.U.)**	**TSS (mg/l)**
02/01/2016	1.790	0.549	334	0.478	7.80	0.0
02/08/2016	1.570	0.532	339	0.459	7.73	0.0
02/16/2016	2.070	0.778	287	0.588	7.90	8.0
02/22/2016	0.930	1.020	265	0.868	7.80	4.5
02/29/2016	0.424	0.516	299	0.465	8.00	0.0
Minimum	0.424	0.516	265	0.459	7.73	0.0
Maximum	2.070	1.020	339	0.868	8.00	8.0
Average	1.356	0.679	304	0.571	7.85	3.1
Monthly Avg Limit	***2.0***	***1.0***	***-***	***-***	***-***	***15***
Daily Limit	***4.0***	***2.0***	***500***	***0.05***	***6.0-9.0***	***30***

The Chloride sample for the month of February, 2016, performed by the Springfield Metropolitan Sanitary District is unknown (no report was forwarded by SMSD). The limit for chloride discharge to the sanitary district is 30,000 mg/L.

3. OPERATIONS

3.1 EVENTS IMPACTING OPERATIONS

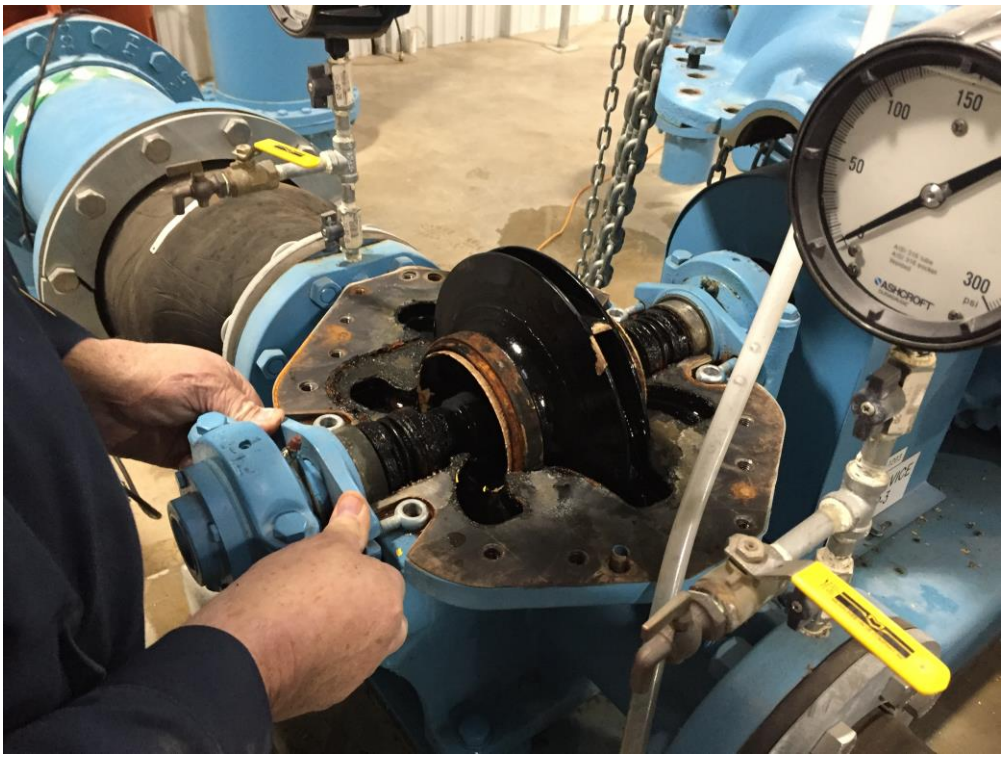
Ray Guguere was on-site to do work on the plant SCADA system during the first week of February.

Dan Held received a call on February 29, 2016 from a local land owner who saw pictures posted on social media Group of people 4-wheeling in the well field.

3.2 EMERGENCY & SERVICE CALLS

Service Calls:

- Illinois Electric Works was on-site February 11, 2016 to complete work on High Service Pump #3. We have been trying to determine the reason for the air in the finished water leaving the plant. Because of the air, we wanted to visually inspect one of the pumps to see if cavitation was occurring. The wear rings on High Service Pump #3 were worn out and needed replaced.



- Brotcke Well and Pump was on-site on February 9, 2016 to complete repairs to Well #2 and to do pump tests on all 10 wells.

- Henson Robinson, Mechanical Contractors, were on-site on February 11, 2016 to make improvements to the Master Meter Pit. During the heavy rains received in late 2015, water poured in the top of the meter pit and submerged both the meter and the electrical outlet that provides electricity to the sump pump.

- While on-site to make repairs to the Master Meter Pit, the Air Release Valve located adjacent to the Rochester Police Station was repaired. The air release valve was damaged by a mower last summer/fall.

3.2.1 Emergency Call-outs

There were no emergency call-outs for the month of February 2016.

3.3 CUSTOMER INQUIRIES

We received 2 (two) customer inquiries during the month of February 2016.

- Ms. Angela Cox sent an email to the plant regarding the quality of her water at her Chatham residence. The email was forwarded to Dustin Patterson.

- Mr. Neal Young sent an email regarding a broken link on the SSWC website. The link has been repaired.

4. MAINTENANCE AND REPAIR

4.1 PREVENTATIVE AND PREDICTIVE MAINTENANCE

For the month of February 2016, there were 23 inspections, 28 preventative and 1 corrective maintenance activities completed.

Hach's Field Service Representative was on-site February 25, 2016 to preventive maintenance and corrective repairs on the CL 17, the DR 2800 and Finished Water Turbidimeter.

4.2 CORRECTIVE REPAIRS

On February 7, 2016, the foot valve on the sodium bisulfite pump stuck open which caused the pump to lose its prime. The foot valve was replaced by Keith Sommers when the issue was discovered. There was no interruption in service.

On February 19, 2016, Bank #3 had a High Outlet Pressure alarm. The alarm required the replacement of the Rotameter and Air Regulator. The bank was off line for approximately 1 hour. There was no disruption in service.

On February 22, 2016, Bank #2 had a High Pressure alarm. The alarm required the replacement of the Rotameter and Air Regulator. Keith Sommers made repairs to the bank and it was off-line for approximately 1 hour. There was no disruption in service.

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5. PROJECT MANAGEMENT & SUPPORT

5.1 STAFFING & TRAINING

- Woodard and Curran continues to train and provide staffing to the plant as needed.

5.2 CORPORATE SUPPORT

- Marc Thomas, Dan Held, Keith Sommers, Bobby Nichols and Paul Juranek of Fife Chemical participated in a conference call on February 8, 2016 regarding the Sodium Permanganate Pilot Study to begin on February 17, 2016.
- Marc Thomas, Joe Hurley, Dan Held and Max Middendorf of Meco Engineering participated in a conference call on February 9, 2016 regarding proposed modifications to the Ross Valve on the Chatham Reservoir.
- Marc Thomas met with Mr. Andy Curry and from Curry and Associates regarding the Complete Plant Evaluation (CPE) being done at the request of Mr. Terry Burke.

5.3 BUDGET

The 10 (ten) months financial summary is provided below in Table 4.1 showing the costs are $57,888 under budget for the year to date.

Table 4.1 Budget Table

Budget Category	Month Budget	Month Actual	YTD Budget	YTD Actual	Annual Budget	Over (under)	% of budget
Labor (D.L. + OH)	$19,187	$27,331	$191,870	$205,011	$230,244	$13,141	89%
Utilities	$8,320	$9,867	$83,200	$67,920	$99,840	($15,280)	68%
Chemicals	$16,388	$14,076	$163,879	$143,347	$196,655	($20,532)	73%
Maintenance & Repair	$8,299	$3,959	$82,988	$77,179	$99,585	($5,809)	78%
Chloride	$13,813	$12,579	$138,133	$104,988	$165,760	($33,145)	63%
Lab Supplies and Equipment	$1,530	$2,269	$15,296	$14,176	$18,355	($1,120)	77%
Office Supplies	$188	$25	$1,875	$3,809	$2,250	$1,934	169%
Miscellaneous Expenses	$1,213	$1,309	$12,125	$15,606	$14,550	$3,481	107%
Other Operating Costs	$278	$104	$2,783	$2,227	$3,339	($556)	67%
Subtotal of Costs for Contract Year 2	**$69,215**	**$71,519**	**$692,148**	**$634,263**	**$830,578**	**($57,886)**	**76%**
Fixed Fee for Contract Year 2	$6,922	$6,922	$69,216	$69,216	$83,059	$0	83%
Year One Transition	$1,365	$1,365	$13,654	$13,652	$16,385	($2)	83%
Total	**$77,502**	**$79,806**	**$775,018**	**$717,131**	**$930,022**	**($57,888)**	77%

6. CAPITAL PLANNING

6.1 APPROVED CIP PROJECTS CURRENT STATUS

Engineering for the removal of Chlorine of the Lagoon discharge water has been completed and submitted to the Illinois Environmental Protection Agency (EPA) for approval. EPA has a 45-day waiting period requirement before an inquiry can be made regarding the status of the project.

6.2 DRAFT CAPITAL IMPROVEMENT PLAN

The CIP is a planning document that includes all projects anticipated to exceed $5,000 in cost over the next five years.

The CIP is an ongoing process and will be refined from time to time as projects are completed and new issues are identified.

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217) 782-3397
BRUCE RAUNER, GOVERNOR LISA BONNETT, DIRECTOR

February 22, 2016

Village President Tom Gray
Village of Chatham
116 East Mulberry Street
Chatham, Illinois 62629

Re: Water quality issues in Village of Chatham

Dear Village President Gray:

The Illinois Environmental Protection Agency (Illinois EPA) is aware of the ongoing concerns expressed by residents of Chatham related to the quality of drinking water being provided by the South Sangamon Water Commission (Commission).

Today the Illinois EPA sent the attached letter to the Commission, directing the Commission to conduct a Composite Correction Program (CCP) as defined by Section 611.160 of Title 35 of the Illinois Administrative Code. The CCP is to be performed by a third party contractor chosen by and on behalf of the Commission. The purpose and goals behind this request are stated in the letter, clearly noting the concerns of Chatham's community and the desire to resolve those concerns to the fullest extent possible.

The Illinois EPA will keep the Village informed of the progress of the Commission's actions, including the results of any sampling conducted by the Commission during the CCP activities. The Comprehensive Performance Evaluation component of the CCP is to be completed within 30 days of the Commission's receipt of the attached letter, and the final CCP report is to be completed within 180 days of the Commission's receipt of the letter.

To date the results of routine water sampling required of the Commission and the Village have been submitted to the Illinois EPA in a timely manner, and review has shown that none of those sample results exceeded the drinking water standards, including the regulatory action level for lead.

As you are likely aware, the Village also conducted special monitoring of water and mineral deposits in 2014 and again in 2015 to identify material being deposited in consumer plumbing fixtures and within the distribution piping of the Chatham water system. These samples were not collected for compliance monitoring under the lead and copper regulations.

4302 N. Main St., Rockford, IL 61103 (815) 987-7760
595 S. State, Elgin, IL 60123 (847) 608-3131
2125 S. First St., Champaign, IL 61820 (217) 278-5800
2009 Mall St., Collinsville, IL 62234 (618) 346-5120
9511 Harrison St., Des Plaines, IL 60016 (847) 294-4000
412 SW Washington St., Suite D, Peoria, IL 61602 (309) 671-3022
2309 W. Main St., Suite 116, Marion, IL 62959 (618) 993-7200
100 W. Randolph, Suite 10-300, Chicago, IL 60601

Illinois EPA's review of the results of these special studies noted that water samples collected concurrently with these mineral deposit samples were not outside acceptable ranges for manganese and copper.

Illinois EPA understands that the Commission is adding a blended phosphate to the treated water being supplied to the Village. This accepted practice is done by many water systems in Illinois for the purpose of corrosion control. This phosphate material was permitted by the Illinois EPA and has been certified by the National Sanitation Foundation for use in potable water systems. The Illinois EPA is aware that the Commission is still in the process of optimizing the use of this chemical to further refine their treatment process.

With respect to disinfectant residuals, the Illinois EPA is satisfied that changes made approximately one year ago (in conjunction with technical assistance provided by the Illinois EPA) have stabilized the chlorination process. Finally, the Illinois EPA expects to see positive effects from a recently permitted chemical addition process that should aid in oxidizing iron and manganese prior to the ion exchange and membrane filtration processes at the Commission's water plant.

As demonstrated by the recent direction to the Commission to undertake steps for the CCP, the Illinois EPA is committed to assisting Chatham and its residents by identifying further possible enhancements in the Commission's operations. The Illinois EPA looks forward to continued interaction with the Village through the CCP process.

If you have any questions regarding this letter, please feel free to contact Dave McMillan, Manager of the Division of Public Water Supplies, at 217-782-1020.

Sincerely,

Marcia L. Willhite

Marcia Willhite
Chief
Bureau of Water

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

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(217)782-1020

February 22, 2016

Terry Burke, Chairman
South Sangamon Water Commission
P.O. Box 83
New Berlin, Illinois 62670-0083

Re: South Sangamon Water Commission (IL1670080)

Dear Chairman Burke:

The Illinois Environmental Protection Agency's (Illinois EPA) is directing the South Sangamon Water Commission (Commission) to conduct a Composite Correction Program (CCP). This requirement is made pursuant to Section 611.160(a) of Title 35 of the Illinois Administrative Code (35 Ill. Adm. Code 611.160(a)), and is requested in light of ongoing consumer concerns expressed by residents within the Chatham community water supply distribution system. The Illinois EPA directs the Commission to engage the services of an outside third party contractor to conduct the CCP on behalf of the Commission.

Pursuant to Section 611.160(a), a CCP consists of two elements, namely a Comprehensive Performance Evaluation (CPE) and a Comprehensive Technical Assistance (CTA). The CPE will be a thorough review and analysis of the Commission's plant, specifically as to the plant's performance-based capabilities and associated administrative, operation, and maintenance practices.

The Illinois EPA requests that, upon receipt of this correspondence, the CPE be completed and submitted within 30 days and the full CCP report be completed and submitted within 180 days.

The CPE must consist of at least the following components:

1) Assessment of plant performance;
2) Evaluation of major unit processes;
3) Identification and prioritization of performance limiting factors;
4) Assessment of the applicability of comprehensive technical assistance; and
5) Preparation of the CPE report.

As described in Section 611.160(a)(3), the CTA is the performance improvement phase that will be implemented if the CPE results indicate improved performance potential.

4302 N. Main St., Rockford, IL 61103 (815) 987-7760
595 S. State, Elgin, IL 60123 (847) 608-3131
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2309 W. Main St., Suite 116, Marion, IL 62959 (618) 993-7200
100 W. Randolph, Suite 10-300, Chicago, IL 60601

The Illinois EPA requests that any additional water quality monitoring and analysis necessary to complete the CCP be performed as soon as possible;. Because of the ongoing consumer concerns with the water quality being supplied by the Commission, please submit plans for data collection to the Illinois EPA for approval prior to sample collection.

Again, because of consumer concerns, please provide analytical results to the Illinois EPA immediately upon receipt while the Commission continues with the remainder of the CCP steps.

The Illinois EPA looks forward to assisting the Commission as you move forward through the CCP. Should you require technical assistance or need to inform the public regarding the position of the Illinois EPA in your future efforts to improve water quality in your service area, please feel free to contact Dave McMillan, Manager of the Division of Public Water Supplies, at 217-782-1020.

Sincerely,

Marcia Willhite
Chief
Bureau of Water