WOODARD &CURRAN

Monthly Operating REPORT

March 2016

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So. Sangamon

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woodardcurran.com

COMMITMENT & INTEGRITY DRIVE RESULTS

TABLE OF CONTENTS

LIST OF TABLES

TABLE **PAGE NO.**

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 March. Laura Bonk, Joanna Wallace's successor, 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 March.

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

The plant produced 28.1 million gallons of finished water for the month of March.

For the month of March 2016, there were 1 inspections, 13 preventative and 0 corrective maintenance activities completed. There were no alarms that required personnel at the plant after normal operating hours. There were six customer inquiries for the month.

After 11 months, financial summaries indicate costs are $43,191 under budget for the year to date.

On March 28, 2016, work began on the Comprehensive Performance Evaluation (CPE). Mike and Andy Curry from Curran and Associates along with John Bartolomucci from the Illinois EPA and Shane Hill from the village of Chatham make-up the committee performing the CPE. The CPE Committee made preliminary results of their findings available to the water plant on March 30, 2016. The committee will make formal recommendations to the Illinois EPA at a later date. Once received, the Illinois EPA will formally contact the SSWC with their required and recommendations changes. It is anticipated the formal letter from the Illinois EPA will arrive near the end of April.

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. This is accomplished by requiring daily safety meetings, 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 March, 2016.

1.3 SAFETY AUDIT

The next conference call regarding the Safety Audit has not been scheduled as of this date. Ms. Laura Bonk will be on site in early April to evaluate the remaining safety audit items. To date, approximately 80 percent of the items identified have been addressed.

1.4 MISCELLANEOUS SAFETY

Keith Sommers is working toward receiving his wastewater license from the State of Illinois. In order to accomplish this, he must complete a five-week internship at a wastewater plant. Keith spent the week of March 21, 2016 to March 28, 2016 at Monmouth, Illinois in training.

As required by Woodard and Curran, Dan Held had his yearly physical on March 10, 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 March.

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

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. On March 28, 2016, work began on the CPE. Mike and Andy Curry from Curran and Associates along with John Bartolomucci from the Illinois EPA and Shane Hill from the village of Chatham make-up the committee performing the CPE. The CPE Committee made preliminary results of their findings for the water plant available on March 30, 2016.

The committee makes formal recommendations to the Illinois EPA at a later date. Once received, the Illinois EPA will formally contact the SSWC with they're required and recommendations changes. It is anticipated that the formal letter from the Illinois EPA will arrive near the end of April.

2.2 INFLUENT FLOWS AND LOADINGS

The total water produced for the month of March, 2016 was 33.3 MG and the influent parameters were all within the normal range. Please note that at the request of the Illinois EPA, as of February 2016 these numbers reflect water characteristics prior to Aeration.

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	7.76	13.1	0.72	0.335	0.28	358	280	1.029
2	7.50	13.5	0.65	0.387	0.20	360	282	0.966
3	7.53	13.2	0.66	0.392	0.18	360	276	1.015
4	7.45	13.4	0.65	0.406	0.20	360	280	1.068
5	7.42	12.7	0.64	0.430	0.18	360	284	1.036
6	7.40	14.0	0.64	0.407	0.20	362	280	1.123
7	7.43	13.6	0.60	0.403	0.28	360	280	1.168
8	7.48	13.7	0.64	0.427	0.16	366	280	0.998
9	7.45	13.8	0.75	0.408	0.14	362	280	1.083
10	7.65	13.4	0.65	0.388	0.29	368	286	1.048
11	7.44	13.2	0.64	0.382	0.09	366	284	1.102
12	7.50	13.5	0.68	0.518	0.24	368	280	1.023
13	7.51	13.5	0.71	0.392	0.18	364	282	1.116
14	7.45	13.5	0.72	0.366	0.19	366	280	1.077
15	7.41	13.8	0.68	0.330	0.15	360	280	1.099
16	7.63	13.4	0.75	0.379	0.27	360	286	1.069
17	7.28	13.4	0.61	0.356	0.26	360	286	1.047
18	7.74	14.0	0.56	0.422	0.17	360	284	1.105
19	7.46	13.2	0.63	0.437	0.17	360	280	0.979
20	7.48	12.9	0.58	0.421	0.19	362	280	1.138
21	7.44	13.1	0.55	0.387	0.22	360	280	1.134
22	7.44	13.1	0.54	0.471	0.40	364	284	1.113
23	7.52	13.5	0.83	0.372	0.29	366	286	1.111
24	7.33	13.9	0.73	0.339	0.30	362	288	1.072
25	7.61	12.9	0.61	0.376	0.27	364	288	1.119
26	7.49	13.1	0.58	0.366	0.28	366	286	1.063
27	7.54	13.4	0.67	0.388	0.21	362	284	1.247
28	7.50	12.8	0.69	0.416	0.17	360	280	1.087
29	7.46	13.1	0.59	0.391	0.21	362	284	1.043
30	7.51	13.5	0.63	0.428	0.21	364	280	1.066
31	7.46	13.6	0.77	0.413	0.22	360	282	0.926
Max.	7.46	13.60	0.77	0.413	0.22	360	282	1.247
Min.	7.28	12.70	0.54	0.330	0.09	358	276	0.926
Avg.	7.49	13.38	0.66	0.398	0.22	362	282	1.073
Total	-	-	-	-	-	-	-	33.270

2.3 EFFLUENT CONCENTRATIONS

The facility produced 28.1 MG during the month with a daily average of 0.9 MG and a min/max of .780/1.04 MG.

Table 2.3 Finished Water Quality

Date	Free Cl2	Total Cl2	pH	Temp	Iron	Manganese	Fluoride	Hardness	Alkalinity	Phosphate
1	1.3	1.3	7.90	12.80	0.01	0.023	0.55	120	260	0.63
2	1.4	1.4	7.89	12.80	0.01	0.012	0.75	122	260	0.69
3	1.3	1.4	7.96	12.60	0.01	0.015	0.79	120	250	0.79
4	1.3	1.4	7.78	13.00	0.01	0.009	0.71	120	260	0.76
5	1.3	1.4	7.74	12.80	0.01	0.018	0.77	120	264	0.77
6	1.3	1.4	7.66	13.30	0.01	0.018	0.56	120	255	0.80
7	1.4	1.4	7.79	13.30	0.01	0.011	0.88	122	264	0.72
8	1.3	1.4	7.79	13.70	0.01	0.016	0.96	126	260	0.80
9	1.2	1.3	7.68	13.80	0.01	0.015	0.74	120	262	0.68
10	1.1	1.2	7.71	13.80	0.03	0.021	0.65	126	270	0.85
11	1.3	1.4	7.71	13.20	0.01	0.012	0.59	120	270	0.75
12	1.4	1.5	7.70	13.20	0.00	0.040	0.80	110	260	0.81
13	1.0	1.0	7.72	13.40	0.01	0.025	0.46	122	266	0.80
14	1.3	1.4	7.82	13.60	0.01	0.011	0.32	120	274	0.54
15	1.2	1.2	7.70	13.70	0.00	0.011	0.42	120	258	0.53
16	1.4	1.5	7.56	14.20	0.00	0.033	0.90	122	268	0.73
17	1.8	1.7	7.49	13.90	0.00	0.012	0.78	114	270	0.72
18	1.4	1.4	7.85	13.00	0.01	0.024	0.80	130	280	0.81
19	1.5	1.5	7.73	12.90	0.01	0.024	0.63	122	266	0.81
20	1.6	1.6	7.65	12.70	0.01	0.020	0.79	118	266	0.82
21	1.5	1.6	7.61	12.70	0.01	0.013	0.75	120	270	0.47
22	1.3	1.4	7.49	13.50	0.00	0.035	0.88	124	260	0.53
23	1.2	1.2	4.69	13.70	0.00	0.015	0.95	126	262	0.62
24	1.5	1.5	7.21	13.20	0.00	0.024	0.79	120	264	0.56
25	1.4	1.6	7.67	13.40	0.00	0.020	0.66	120	258	0.81
26	1.6	1.6	7.70	13.50	0.00	0.008	0.79	118	268	0.90
27	1.2	1.2	7.78	13.60	0.00	0.022	0.90	124	262	0.81
28	1.2	1.2	7.91	13.30	0.01	0.030	0.55	130	260	0.69
29	1.2	1.3	7.96	13.20	0.01	0.012	0.76	120	260	0.78
30	1.1	1.2	8.04	13.10	0.01	0.014	0.24	132	260	0.90
31	1.4	1.5	7.91	13.80	0.01	0.014	0.93	126	262	0.63
Max	1.8	1.7	8.04	14.20	0.03	0.040	0.96	132	280	0.90
Min	1.0	1.0	4.69	12.60	0.00	0.008	0.24	110	250	0.47
Avg	1.3	1.4	7.64	13.31	0.01	0.019	0.71	122	264	0.73

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)**
03/07/2016	1.030	0.614	302	0.711	8.00	5.50
03/16/2016	0.284	0.173	282	0.166	7.72	0.00
03/21/2016	0.302	0.205	290	0.160	7.89	0.00
03/29/2016	0.195	0.104	264	0.160	7.72	0.00
N/A	-	-	-	-	-	-
Minimum	0.195	0.104	264	0.160	7.72	0.00
Maximum	1.030	0.614	302	0.711	8.00	5.50
Average	0.452	0.274	285	0.299	7.83	1.38
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 March 2016, performed by the Springfield Metropolitan Sanitary District, was 18,100 mg/L. The limit for chloride discharge to the sanitary district is 30,000 mg/L.

3. OPERATIONS

3.1 EVENTS IMPACTING OPERATIONS

We continue to feed sodium permanganate prior to detention while closely monitoring controls and readings. To this point the sodium permanganate trial has been successful.

3.2 EMERGENCY & SERVICE CALLS

Service Calls:

- There were no service calls for the month of March, 2016.

3.2.1 Emergency Call-outs

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

3.3 CUSTOMER INQUIRIES

We received 6 (six) customer inquiries during the month of March 2016.

- Mr. Justin King from New Berlin emailed the plant regarding getting service from South Sangamon Water Commission for his new home east of New Berlin.

- Mr. Dustin Patterson from the village of Chatham texted the plant regarding chlorine residuals in the plant in Chatham. The residuals had been slightly reduced and wanted to know if we had been lowering the chlorine.

- Mr. Bryon Muensch from New Berlin, Illinois had contacted Ms. Laura VanProyen regarding his water bill being high. Dan Held contacted Mr. Muensch and made arrangements to meet with him to try and identify where the leak was taking place. Subsequently, the leak has been fixed.

- Ms. Debbie Drennan from the village of Chatham emailed the plant to verify her FOIA request had been received for the South Sangamon Water Commission. I forwarded the email to Ms. Laura VanProyen and verified the request had been received.

- On March 30, 2016 the plant received a call from WAND, Channel 17 in Decatur requesting a tour of the SSWC plant.

- Ms. Treva Kane emailed the plant regarding water quality issues. Dan Held went to Ms. Kane's residence and pulled samples and delivered them to Prairie Analytical for analysis. Below is a picture of her aerator and the back of the hallway bathroom stool. She also showed me her frying pan which looked like it had little white circles on it. Nothing in the samples looked out of line with the quality of the water leaving the plant. A copy of the sample results were emailed to Ms. Kane per her request.

4. MAINTENANCE AND REPAIR

4.1 PREVENTATIVE AND PREDICTIVE MAINTENANCE

For the month of March 2016, there were 1 inspections, 13 preventative and 0 corrective maintenance activities completed.

4.2 CORRECTIVE REPAIRS

A new leak was discovered on Bank #1 on the WesTech filters. Pictured below is a photo of the leak. In order to fix the leak, the Bank will have to be taken off line, the header will need to be removed, a new gasket installed and the header and associated clamps reinstalled. Arrangements are being made and the necessary parts order in order to effect repairs.

At the request of SSWC Chairman Terry Burke, the hydrant located at the corner of Cardinal Hill Road and St. Hilaire Road south of Rochester was straightened. Henson Robinson has since straighten the hydrant. Pictured below is the hydrant after repairs were made.

The valve box in the well field that isolates Wells 3 and 5 was broke and full of dirt. Henson Robinson repaired the valve box and raised to keep dirt from infiltrating the box in the future.

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, Joe Hurley and Ray Giguere participated in a conference call regarding the feeding the sodium permanganate at the plant.
- Marc Thomas, Dan Held, Keith Sommers, Joanne Wallace and Laura Bonk participated in a conference regarding remaining items on the safety audit.
- Dan Held and Bobby Nichols worked together on implementing a number of changes to the Operations Report that is required to be submitted to the Illinois EPA.
- Marc Thomas, Dan Held, Bobby Nichols, Joe Hurley, Ray Giguere and Max Middendorf from Meco Engineering participated in a conference call to discuss future SCADA needs for the plant and the valve at the Chatham Reservoir.

5.3 BUDGET

The eleventh month financial summary is provided below in Table 4.1 showing the costs are $43,191 under budget for the year to date.

Table 5.3 Budget Table

Budget Category	Month Budget	Month Actual	YTD Budget	YTD Actual	Annual Budget	Over (under)	% of budget
Labor (D.L. + OH)	$19,187	$22,138	$211,057	$227,149	$230,244	$16,092	99%
Utilities	$8,320	$11,670	$91,520	$79,590	$99,840	($11,930)	80%
Chemicals	$16,388	$10,371	$180,267	$153,718	$196,655	($26,549)	78%
Maintenance & Repair	$8,299	$22,452	$91,286	$99,631	$99,585	$8,345	100%
Chloride	$13,813	$9,840	$151,947	$114,828	$165,760	($37,119)	69%
Lab Supplies and Equipment	$1,530	$6,274	$16,825	$20,450	$18,355	$3,625	111%
Office Supplies	$188	$317	$2,063	$4,126	$2,250	$2,064	183%
Miscellaneous Expenses	$1,213	$756	$13,338	$16,362	$14,550	$3,025	112%
Other Operating Costs	$278	$94	$3,061	$2,321	$3,339	($740)	70%
Subtotal of Costs for Contract Year 2	**$69,215**	**$83,912**	**$761,363**	**$718,175**	**$830,578**	($43,188)	86%
Fixed Fee for Contract Year 2	$6,922	$6,922	$76,137	$76,137	$83,059	$0	92%
Year One Transition	$1,365	$1,365	$15,020	$15,017	$16,385	($3)	92%
Total	**$77,502**	**$92,199**	**$852,520**	**$809,330**	**$930,022**	**($43,191)**	87%

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.

Dan Held sent a letter to the Illinois EPA requesting a one-year extension for the Manganese Greensand and Pigging project for the raw water lines. The permits was extended to March 2, 2017.

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.