



Monthly Operating REPORT

January 2016



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So. Sangamon

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woodardcurran.com
COMMITMENT & INTEGRITY DRIVE RESULTS

TABLE OF CONTENTS



SECTION	PAGE NO.
Executive Summary.....	ES-1
1. SAFETY	1-1
1.1 Safety Training	1-1
1.2 Lost time Accidents	1-1
1.3 Safety Audit	1-1
1.4 Miscellaneous Safety.....	1-1
2. COMPLIANCE, FLOWS, AND LOADINGS	2-1
2.1 Compliance	2-1
2.2 Influent flows and loadings	2-2
2.3 Effluent Concentrations	2-3
2.4 Lagoon Discharge Concentrations	2-4
3. OPERATIONS.....	3-1
3.1 Events impacting operations	3-1
3.2 Emergency & Service calls.....	3-1
3.2.1 Emergency Call-outs	3-1
3.3 Customer Inquiries	3-1
4. MAINTENANCE AND REPAIR.....	4-1
4.1 Preventive Maintenance.....	4-1
4.2 Corrective Repairs.....	4-1
5. PROJECT MANAGEMENT & SUPPORT	5-1
5.1 Staffing & Training.....	5-1
5.2 Corporate Support.....	5-1
5.3 Budget.....	5-2
6. CAPITAL PLANNING	6-1
6.1 Approved CIP Projects Current status.....	6-1
6.2 Draft Capital Improvement Plan	6-1



LIST OF TABLES

TABLE	PAGE NO.
Table 2.2 Influent Concentrations and Flow.....	2-2
Table 2.3 Finished Water Quality.....	2-3
Table 2.4 Weekly Grab Sample Analysis Results.....	2-4
Table 4.1 Budget Table.....	5-2



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 January. 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 January.

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

The plant produced 30.9 million gallons of water for the month of January 2016.

For the month of December 2015, there were 28 inspections, 6 preventative and 0 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 nine months, financial summaries indicate costs are \$60,192 under budget for the year to date.

Woodard and Curran is working with Mecco 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.

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 January 2016.

1.3 SAFETY AUDIT

On January 19, 2016, Marc Thomas, Dan Held, Keith Sommers and Joanne Wallace participated in a conference call regarding the Safety Audit that was performed earlier in the year. To date, approximately 80 percent of the items identified have been addressed.

1.4 MISCELLANEOUS SAFETY

Dan Held filed the Tier II forms with Illinois Emergency Management Agency (IEMA). The goal of IEMA's State Emergency Response Commission (SERC) is to promote chemical emergency preparedness and prevention throughout the state of Illinois. The SERC, through implementation of emergency planning and community right-to-know laws and through establishment and support of its Local Emergency Planning Committees (LEPCs), assists in chemical emergency planning, provides public access to chemical data, raises public awareness of chemical risks and encourages public participation in local chemical safety issues.

Owners or operators of facilities with hazardous chemicals on hand in quantities equal to or greater than set threshold levels must submit Tier II forms between January 1 and March 1 for the previous calendar year.

The purpose of the Tier II form is to provide state and local officials and the public with specific information on hazardous chemicals present at your facility during the previous calendar year.

The Illinois Emergency Management Agency requires all regulated facilities to submit 312 (Tier II) information electronically by using Tier II Manager™, IEMA's online filing system. Each facility's username is unique to its physical (9-1-1) address.



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 January 2016.

We continue to experience a slight exceedance of the maximum allowable Chlorine residual allowed by the NPDES discharge permit. Engineering is currently under way by Woodard and Curran staff. We anticipate submitting the project to the Illinois Environmental Protection Agency (IEPA) by the end of February.

The construction permit required for the sodium permanganate pilot study was received by the IEPA on November 10, 2015. The construction permit was granted on February 3, 2016. The first portion of the pilot study is scheduled to begin on February 17, 2015

On January 25, 2016, a meeting between Woodard and Curran, SSWC, village of Chatham and the IEPA to discuss the city of Springfield becoming a backup water supply for the village of Chatham. Concerns had arose over the use of free chlorine by the SSWC and chloramines by the city of Springfield and the concern a minimum chlorine residual could not be sustained. A plan is now in place to mitigate this issue and Chatham can now use Springfield as a backup water supply.

2.2 INFLUENT FLOWS AND LOADINGS

The total water produced for the month of January 2016 was 34.5 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	7.78	13.20	0.66	0.236	0.23	360	280	1.102
2	7.75	13.70	0.48	0.232	0.20	370	284	1.107
3	7.76	13.50	0.54	0.239	0.21	364	282	1.176
4	7.79	14.00	0.57	0.247	0.26	364	280	1.115
5	7.79	13.70	0.57	0.233	0.24	362	282	1.049
6	7.82	13.70	0.54	0.231	0.22	370	288	1.079
7	7.78	13.50	0.62	0.233	0.26	368	282	1.095
8	7.77	13.70	0.68	0.234	0.22	368	282	1.238
9	7.55	14.60	0.87	0.226	0.22	366	282	1.048
10	7.74	12.40	0.75	0.232	0.24	362	284	1.126
11	7.62	14.10	0.48	0.233	0.24	366	280	1.190
12	7.88	13.30	0.44	0.217	0.23	360	280	1.077
13	7.81	13.10	0.44	0.219	0.20	362	286	1.131
14	7.81	13.50	0.51	0.207	0.36	364	282	1.159
15	7.81	13.50	0.49	0.219	0.20	364	288	1.084
16	7.57	13.80	0.50	0.215	0.23	360	282	1.104
17	7.59	13.60	0.46	0.214	0.17	360	282	1.072
18	7.68	12.50	0.49	0.217	0.17	362	288	1.201
19	7.66	13.60	0.53	0.229	0.20	362	284	1.055
20	7.64	14.10	0.51	0.219	0.25	360	280	1.156
21	7.48	14.50	0.49	0.217	0.27	364	280	1.010
22	7.47	14.50	0.61	0.214	0.24	360	282	1.117
23	7.82	13.20	0.59	0.215	0.23	360	282	1.119
24	7.79	13.20	0.55	0.207	0.25	360	284	1.136
25	7.76	13.10	0.56	0.214	0.04	364	282	1.200
26	7.78	12.80	0.71	0.210	0.20	362	262	1.073
27	7.81	13.10	0.77	0.211	0.11	360	282	1.089
28	7.52	14.10	0.69	0.232	0.20	364	280	1.029
29	7.57	14.20	0.60	0.207	0.27	360	280	1.198
30	7.68	14.10	1.52	0.215	0.20	366	284	1.046
31	7.51	14.90	0.97	0.205	0.21	360	280	1.208
Max.	7.88	14.9	1.52	0.247	0.36	370	288	1.238
Min.	7.47	12.4	0.44	0.205	0.04	360	262	1.010
Avg.	7.70	13.6	0.62	0.222	0.22	363	282	1.116
Total	-	-	-	-	-	-	-	34.589

2.3 EFFLUENT CONCENTRATIONS

The facility produced 30.9 MG during the month with a daily average of 0.997 MG and a min/max of 0.913/1.114 MG.

Date	Free Cl ₂	Total Cl ₂	pH	Temp	Iron	Manganese	Fluoride	Hardness	Alkalinity	Phosphate
1	1.4	1.4	7.97	12.90	0.01	0.044	0.71	126	266	0.90
2	1.4	1.4	8.02	13.30	0.01	0.051	0.53	122	268	0.87
3	1.4	1.5	8.02	13.30	0.01	0.048	0.33	124	276	0.91
4	1.4	1.5	8.01	13.40	0.01	0.051	0.72	126	264	0.85
5	1.4	1.5	7.98	13.40	0.01	0.046	0.98	114	264	0.61
6	1.5	1.6	8.00	13.30	0.01	0.050	0.90	130	264	0.67
7	1.4	1.5	7.95	13.50	0.01	0.044	0.77	124	270	1.05
8	1.4	1.5	7.99	13.80	0.01	0.043	0.32	122	262	0.79
9	1.4	1.5	7.97	13.40	0.01	0.045	0.86	122	266	0.85
10	1.4	1.5	7.86	12.50	0.00	0.046	0.91	122	272	0.83
11	1.4	1.5	8.04	12.70	0.01	0.049	0.78	128	270	0.89
12	1.4	1.5	8.01	12.70	0.01	0.051	0.78	120	264	0.70
13	1.4	1.4	7.98	12.60	0.01	0.045	0.89	128	272	0.84
14	1.4	1.4	7.88	13.60	0.00	0.040	0.76	116	266	0.83
15	1.4	1.4	8.01	13.70	0.01	0.055	0.72	132	266	0.88
16	1.4	1.4	8.09	12.50	0.01	0.051	0.71	120	266	0.80
17	1.2	1.3	8.05	12.20	0.01	0.059	0.40	116	262	0.84
18	1.4	1.5	8.08	12.00	0.01	0.048	0.85	122	262	0.83
19	1.5	1.5	8.02	12.40	0.01	0.039	0.81	114	260	0.83
20	1.4	1.4	8.06	12.60	0.01	0.037	0.56	120	264	0.75
21	1.4	1.6	8.03	12.70	0.01	0.046	0.49	118	272	0.63
22	1.4	1.4	8.03	12.60	0.01	0.041	0.80	120	264	0.87
23	1.4	1.5	8.06	12.70	0.01	0.045	0.36	120	264	0.82
24	1.4	1.5	8.03	12.80	0.01	0.041	0.64	120	266	0.86
25	1.4	1.2	7.89	13.40	0.00	0.042	0.41	120	266	0.65
26	1.5	1.5	7.78	13.10	0.00	0.057	1.02	122	270	0.85
27	1.5	1.5	7.81	13.20	0.00	0.042	0.97	122	276	0.79
28	1.4	1.5	8.01	13.10	0.01	0.052	0.32	120	268	0.84
29	1.4	1.4	7.99	13.00	0.01	0.053	1.18	120	270	0.87
30	1.5	1.6	8.06	13.10	0.01	0.047	0.71	120	260	0.78
31	1.4	1.5	8.01	13.40	0.01	0.040	0.68	120	260	0.82
Max	1.5	1.6	8.09	13.80	0.00	0.059	1.18	132	276	1.05
Min	1.2	1.2	7.78	12.00	0.01	0.037	0.32	114	260	0.61
Avg	1.4	1.5	7.99	13.00	0.01	0.047	0.71	122	266	0.82

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)	Cl² (mg/l)	pH (S.U.)	TSS (mg/l)
01/04/2016	1.08	0.355	280	0.204	7.68	0.00
01/13/2016	1.34	0.601	268	0.472	7.64	0.00
01/19/2016	1.41	0.343	285	0.216	7.84	0.00
01/25/2016	2.33	0.786	317	0.607	7.62	5.00
N/A	-	-	-	-	-	-
Minimum	1.08	0.343	268	0.204	7.62	0.00
Maximum	2.33	0.786	317	0.607	7.84	5.00
Average	1.54	0.521	288	0.375	7.70	1.25
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 January, 2016, performed by the Springfield Metropolitan Sanitary District, was 21,200 mg/L. The limit for chloride discharge to the sanitary district is 30,000 mg/L.

3. OPERATIONS

3.1 EVENTS IMPACTING OPERATIONS

Mr. Tyler Walker with Quigg Engineering contacted Dan Held regarding the relocation of a water line near the intersection of Mansion Road and Wesley Chapel Road. The Sangamon County Highway Department is rehabilitating the bridge near that location. Mecco Engineering is working with Quigg Engineering to determine the eventual scope of work at this location.

3.2 EMERGENCY & SERVICE CALLS

Service Calls:

- We received an alarm on January 11, 2016 that Well 2 would not start. Dan Held went down to the well field and put Well 2 in hand but the well would only run at 5 to 6 Hz. We shut the well off and call Anderson Electric. Anderson Electric was on-site January 15, 2016 to troubleshoot. They checked and said the motor was bad. Brotcke Well and Pump were on-site January 21, 2016 and found the motor had burned out. They installed a new motor but the results were the same with regard to how fast the motor would run. Anderson Electric came back to the plant on January 22, 2016 and found the pump was also bad. A new pump was installed on February 10, 2016 and the well is running to waste while we pull samples to demonstrate its okay to be put back on-line.

3.2.1 Emergency Call-outs

There were two emergency call-outs for the month of January 2016. Both call outs, January 21st and January 29, were for alarms on the Ion Exchange Unit #4. We are working with Tonka now to determine what adjustments need to be made to eliminate these alarms. There was no disruption of service associated with these alarms.

3.3 CUSTOMER INQUIRIES

We received two customer inquiries during the month of January 2016.

- Mr. Bruce Maddox telephoned and was requesting information on purchasing water from the SSWC.
- Dustin Patterson emailed and wanted to know if any changes had been made to the softeners or the phosphate systems.



4. MAINTENANCE AND REPAIR

4.1 PREVENTATIVE AND PREDICTIVE MAINTENANCE

For the month of January 2016, there were 28 inspections, 6 preventative and 0 corrective maintenance activities completed.

4.2 CORRECTIVE REPAIRS

There were no corrective repairs done at the plant during the month of January 2016.



5. PROJECT MANAGEMENT & SUPPORT

5.1 STAFFING & TRAINING

- Shannon Eyer, Director of Health and Safety, has seven health and safety sessions that are available to all Woodard and Curran employees. These sessions are very helpful to project managers.

5.2 CORPORATE SUPPORT

- Woodard and Curran personnel were in Chatham from January 4, 2016 through January 8, 2016 to assist in the development of the unidirectional flushing program for the village.
- Marc Thomas and Dan Held met with the village of Chatham and the Illinois Environmental Protection Agency on January 25, 2016 regarding the use of Springfield as a backup water supply by the village of Chatham.
- Dan Held worked with Alan Fabiano on the development of a database to store Lagoon results.
- Dan Held and Marc Thomas participated in a conference call between all the Midwest Project Managers on January 21, 2016.

5.3 BUDGET

The seven months financial summary is provided below in Table 4.1 showing the costs are \$60,192 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	\$28,020	\$172,683	\$177,680	\$230,244	\$4,997	77%
Utilities	\$8,320	\$22,571	\$74,880	\$58,053	\$99,840	(\$16,827)	58%
Chemicals	\$16,388	\$13,115	\$147,491	\$129,271	\$196,655	(\$18,220)	66%
Maintenance & Repair	\$8,299	\$29,454	\$74,689	\$73,220	\$99,585	(\$1,469)	74%
Sludge	\$13,813	\$10,320	\$124,320	\$92,409	\$165,760	(\$31,911)	56%
Lab Supplies and Equipment	\$1,530	\$1,012	\$13,766	\$11,907	\$18,355	(\$1,859)	65%
Office Supplies	\$188	\$0	\$1,688	\$3,784	\$2,250	\$2,097	168%
Miscellaneous Expenses	\$1,213	\$1,176	\$10,913	\$14,297	\$14,550	\$3,385	98%
Other Operating Costs	\$278	\$208	\$2,504	\$2,123	\$3,339	(\$381)	64%
Subtotal of Costs for Contract Year 2	\$69,215	\$60,734	\$622,934	\$562,744	\$830,578	(\$60,190)	68%
Fixed Fee for Contract Year 2	\$6,922	\$6,922	\$62,294	\$62,294	\$83,059	\$0	75%
Year One Transition	\$1,365	\$1,365	\$12,289	\$12,287	\$16,385	(\$2)	75%
Total	\$77,502	\$69,020	\$697,517	\$637,325	\$930,022	(\$60,192)	69%



6. CAPITAL PLANNING

6.1 APPROVED CIP PROJECTS CURRENT STATUS

Engineering staff from Woodard and Curran are developing plans for reducing the amount of chlorine in the Lagoon discharge. We anticipate submitting an application to IEPA for a construction permit before the end of the February 2016.

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.