

Monthly Operating REPORT

December 2015

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So. Sangamon

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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 December. Joanna Wallace continues to monitor the progress of the Safety Audit from Portland, Maine. Approximately 79 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 December 2015. We continue to experience a slight exceedance of the maximum allowable Chlorine residual allowed by the NPDES discharge permit.

The construction permit required for the sodium permanganate pilot study was received by the IEPA on November 10, 2015. There is a minimum 40 day wait time before IEPA can be contracted regarding the status of the permit application. Dan Held contacted IEPA on December 30, 2015 to inquire about the status of the permit. IEPA indicated they had sent out a request for additional information on December 29, 2015.

On December 1, 2015, the South Sangamon Water Commission (SSWC) received a Violation Notice from the Illinois Environmental Protection Agency for failure to provide adequate finished water storage to maintain minimum pressure on the transmission main between the SSWC treatment plant and the ground storage tank in Chatham. Meco Engineering is currently working with the village of Chatham to address this violation by adding a hydro-pneumatic tank to maintain pressure in the event of a high service pump failure. Once completed, SSWC will be removed from the restricted list and allow them to extend water mains as the need arises.

The plant produced 33.7 million gallons of water for the month of December 2015.

For the month of December 2015, there were 30 inspections, 10 preventative and 6 corrective and 8 other maintenance activities completed. There were no alarms that required personnel at the plant after normal operating hours. There were no customer inquiries for the month.

On December 4, and December 11, 2015, the local Plumbers and Pipefitters toured the plant.

After eight months, financial summaries indicate costs are \$51,710 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.

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 December 2015.

1.3 SAFETY AUDIT

On December 22, 2015, Marc Thomas, Dan Held, Bobby Nichols and Joanne Wallace participated in a conference call regarding the Safety Audit that was performed earlier in the year. To date, approximately 79 percent of the items identified have been addressed.

1.4 MISCELLANEOUS SAFETY

A.E.C was on-site to check the fire extinguishers here at the plant on December 9, 2015. All the fire extinguishers were in perfect working condition.



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 December 2015.

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

The construction permit required for the sodium permanganate pilot study was received by the IEPA on November 10, 2015. There is a minimum 40 day wait time before IEPA can be contracted regarding the status of the permit application. Dan Held contacted IEPA on December 30, 2015 to inquire about the status of the permit. IEPA indicated they had sent out a request for additional information on December 29, 2015.

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2.2 INFLUENT FLOWS AND LOADINGS

The total water produced for the month of December 2015 was 39.9 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	7.88	14.3	0.730	0.233	0.24	360	280	1,259
2	7.85	13.6	0.680	0.228	0.28	368	284	1,395
3	7.89	13.4	0.700	0.235	0.21	368	280	1,386
4	7.89	13.8	0.690	0.232	0.21	368	280	1,593
5	7.79	14.4	0.760	0.238	0.28	368	276	1,332
6	7.81	14.2	0.600	0.229	0.18	366	282	1,393
7	7.85	13.9	0.600	0.238	0.23	366	280	1,413
8	7.83	14.6	0.740	0.231	0.18	362	280	1,212
9	7.89	14.4	0.770	0.236	0.25	364	284	1,249
10	7.76	13.7	0.690	0.228	0.16	370	280	1,190
11	7.89	14.4	0.710	0.238	0.28	370	280	1,199
12	7.85	14.9	0.820	0.242	0.21	370	284	1,130
13	7.77	14.4	0.670	0.223	0.28	364	280	1,162
14	7.81	14.0	0.590	0.229	0.27	368	280	1,223
15	7.77	13.9	0.850	0.227	0.19	370	290	1,216
16	7.76	14.2	0.770	0.249	0.31	368	282	1,214
17	7.46	15.2	0.730	0.240	0.29	372	288	1,280
18	7.94	13.8	0.670	0.231	0.26	362	282	1,352
19	7.76	13.6	0.740	0.237	0.26	368	282	1,173
20	7.87	13.6	0.720	0.233	0.29	366	280	1,199
21	7.78	14.5	0.680	0.232	0.23	368	290	1,207
22	7.41	15.1	0.800	0.237	0.20	370	280	1,394
23	7.80	14.1	0.710	0.234	0.31	368	282	1,212
24	7.80	14.5	0.770	0.226	0.30	362	280	1,429
25	7.78	13.9	0.700	0.222	0.22	366	282	1,382
26	7.38	15.0	0.860	0.232	0.17	364	282	1,427
27	7.83	13.4	0.930	0.243	0.18	366	282	1,337
28	7.77	13.7	0.870	0.231	0.21	368	282	1,298
29	7.36	14.8	0.760	0.236	0.25	370	286	1,394
30	7.47	15.1	0.930	0.235	0.20	364	280	1,172
31	7.81	13.5	0.830	0.241	0.18	366	284	1,135
Max.	7.81	13.5	0.830	0.241	0.18	366	284	1,593
Min.	7.36	13.4	0.590	0.222	0.16	360	276	1,130
Avg.	7.76	14.2	0.740	0.234	0.24	367	282	1,289
Total	-	-	-	-	-	-	-	39,957

2.3 EFFLUENT CONCENTRATIONS

The facility produced 33.7 MG during the month with a daily average of 1.08 MG and a min/max of 0.94/1.34 MG.

Date	Free Cl2	Total Cl2	pH	Temp	Iron	Manganese	Fluoride	Hardness	Alkalinity	Phosphate
1	1.4	1.4	8.00	14.10	0.01	0.044	1.00	126	256	0.47
2	1.3	1.3	7.97	13.50	0.01	0.041	0.98	120	272	0.90
3	1.5	1.5	7.56	14.50	0.01	0.039	0.90	122	266	0.87
4	1.5	1.5	8.00	13.50	0.01	0.041	0.98	116	272	0.66
5	1.4	1.4	7.52	15.10	0.01	0.044	1.06	126	268	0.90
6	1.5	1.5	7.74	14.20	0.00	0.047	0.99	124	272	0.83
7	1.4	1.4	7.99	13.60	0.01	0.047	0.55	120	264	0.84
8	1.5	1.5	7.96	14.60	0.01	0.038	0.82	120	268	0.54
9	1.4	1.4	7.96	14.10	0.01	0.049	1.09	118	264	0.76
10	1.4	1.4	7.57	15.50	0.01	0.040	1.12	120	266	0.89
11	1.3	1.3	7.96	14.10	0.00	0.041	1.15	120	270	0.80
12	1.2	1.2	7.98	14.60	0.01	0.044	0.73	122	264	0.77
13	1.3	1.3	8.01	14.50	0.01	0.036	0.32	120	280	0.74
14	1.3	1.3	7.87	14.50	0.01	0.042	0.85	112	270	0.81
15	1.4	1.4	7.85	14.20	0.00	0.045	1.04	122	266	0.89
16	1.6	1.6	7.90	14.20	0.01	0.050	1.11	136	264	0.88
17	1.4	1.4	7.97	13.40	0.01	0.044	1.12	132	270	0.91
18	1.4	1.4	8.01	13.20	0.01	0.041	0.97	126	274	0.78
19	1.4	1.4	7.98	13.30	0.01	0.049	0.92	124	260	0.88
20	1.4	1.4	7.87	13.60	0.01	0.046	0.84	126	264	0.81
21	1.6	1.6	7.96	14.20	0.01	0.044	0.97	128	270	0.78
22	1.4	1.4	7.98	13.60	0.00	0.044	0.86	128	262	0.85
23	1.4	1.5	8.01	13.90	0.01	0.046	0.60	120	260	0.81
24	1.4	1.4	8.02	14.00	0.01	0.044	1.01	120	268	0.81
25	1.4	1.4	7.96	14.10	0.00	0.041	0.91	120	266	0.90
26	1.5	1.5	7.97	13.40	0.00	0.048	0.89	126	264	0.95
27	1.4	1.4	8.00	13.30	0.01	0.045	0.82	126	262	0.76
28	1.4	1.4	8.01	13.20	0.01	0.050	0.78	128	264	0.91
29	1.4	1.5	7.97	13.30	0.00	0.060	0.70	120	270	0.81
30	1.4	1.4	7.98	13.10	0.00	0.049	0.78	122	270	0.78
31	1.4	1.4	7.99	13.10	0.01	0.049	0.65	122	252	0.85
Max	1.6	1.6	8.02	15.50	0.01	0.060	1.15	136	280	0.95
Min	1.2	1.2	7.52	13.10	0.00	0.036	0.32	112	252	0.47
Avg	1.4	1.4	7.92	13.92	0.01	0.045	0.89	123	266	0.81

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)
12/07/2015	0.602	0.099	284	0.000	7.81	0.00
12/15/2015	0.206	0.056	304	0.000	7.95	0.00
12/21/2015	0.551	0.097	266	0.405	7.96	0.00
12/29/2015	0.860	0.283	250	0.242	7.92	0.00
N/A	-	-	-	-	-	-
Minimum	0.206	0.056	250	0.000	7.81	0.00
Maximum	0.860	0.283	304	0.405	7.96	0.00
Average	0.555	0.134	276	0.162	7.91	0.00
Monthly Avg Limit	2.0	1.0	-	-	-	15
Daily Limit	4.0	2.0	500	0.050	6.0-9.0	30

The Chloride sample for the month of December, 2015, performed by the Springfield Metropolitan Sanitary District, was 23,400 mg/L. The limit for chloride discharge to the sanitary district is 30,000 mg/L.

3. OPERATIONS

3.1 EVENTS IMPACTING OPERATIONS

The week of December 7 through December 11, 2015, Joe Hurley and Ray Giguere were on-site to continue work on the high service pumps. They added new control set-points that allow the operator to control the pumps remotely as well as a system pressure set-point. All high service are now controlled from the SCADA computer. The previously installed manual control speed switches were utilized during PLC programming and worked well.

On December 11, 2015, Dan Held, Marc Thomas, Troy Kepley, Bobby Nichols from Woodard and Curran participated in a conference call with Shane Hill and Dustin Patterson from the Village of Chatham to initiate a comprehensive uni-directional Flushing Program in the Village of Chatham.

On December 27, 2015, the area received approximately seven (7) inches of rain over a 48 hour period. This caused the well field to flood. The water was approximately five (5) feet deep at the intersection that takes you to Wells 8, 9 and 10.

Note: it might be a good idea to make arrangements or purchase a flat bottom boat to get to the wells in the event we have another occurrence like this.



3.2 EMERGENCY & SERVICE CALLS

Service Calls:

- There were no service calls for the month of December 2015



3.2.1 Emergency Call-outs

There were no emergency call-outs for the month of December 2015.

3.3 CUSTOMER INQUIRIES

We received no customer inquiries during the month of December 2015.

4. MAINTENANCE AND REPAIR

4.1 PREVENTATIVE AND PREDICTIVE MAINTENANCE

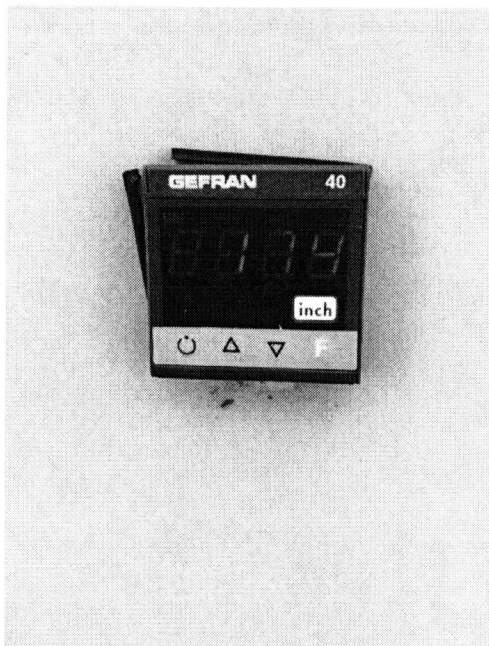
For the month of December 2015, there were 30 inspections, 10 preventative and 6 corrective and 8 other maintenance activities completed.

On December 20, 2015, we cleaned the insertion quill for the chlorine line on the finished water leaving the plant. There was no disruption of service associated with this preventive maintenance activity.

On December 22, 2015, one of the actuators on Filter Bank #1 was not working properly. This caused one of the valves that is normally opened during a backwash to remain closed. Keith Sommers replaced the actuator and put the Filter Bank #1 back on line. The bank was down for approximately 60 minutes and there was no disruption of service.

4.2 CORRECTIVE REPAIRS

On December 4, 2015, Keith Sommers replaced the gasket on brine level indicator on Brine Tank #2. This did not require the tank to be taken off line so there was no interruption of service.



5. PROJECT MANAGEMENT & SUPPORT

5.1 STAFFING & TRAINING

- Dan Held attended the Midwest Project Managers Training meeting in St. Charles Missouri on December 16 and 17, 2015

5.2 CORPORATE SUPPORT

- Shannon Eyler has prepared a six-part series of PowerPoint presentations on Woodard and Curran's Safety program. Dan Held has been participating in these presentations.
- Ray Giguere and Joe Hurley were on-site December 7 through December 11, 2015 to work on the high service pump programming.
- On December 15, 2015, Dan Held and Marc Thomas from Woodard and Curran participated in a conference call with the Village of Chatham regarding a backup water supply agreement with the City of Springfield.

5.3 BUDGET

The eight months financial summary is provided below in Table 4.1 showing the costs are \$51,710 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	\$19,910	\$153,496	\$149,660	\$230,244	(\$3,836)	65%
Utilities	\$8,320	\$296	\$66,560	\$80,624	\$99,840	\$14,064	81%
Chemicals	\$16,388	\$13,807	\$131,103	\$116,156	\$196,655	(\$14,947)	59%
Maintenance & Repair	\$8,299	\$5,446	\$66,390	\$43,766	\$99,585	(\$22,624)	44%
Sludge	\$13,813	\$9,715	\$110,507	\$82,089	\$165,760	(\$28,418)	50%
Lab Supplies and Equipment	\$1,530	\$1,036	\$12,237	\$10,895	\$18,355	(\$1,342)	59%
Office Supplies	\$188	\$370	\$1,500	\$3,784	\$2,250	\$2,284	168%
Miscellaneous Expenses	\$1,213	\$1,340	\$9,700	\$13,121	\$14,550	\$3,421	90%
Other Operating Costs	\$278	\$145	\$2,226	\$1,915	\$3,339	(\$311)	57%
Subtotal of Costs for Contract Year 2	\$69,215	\$52,065	\$553,719	\$502,010	\$830,578	(\$51,709)	60%
Fixed Fee for Contract Year 2	\$6,922	\$6,922	\$55,373	\$55,373	\$83,059	\$0	67%
Year One Transition	\$1,365	\$1,365	\$10,923	\$10,922	\$16,385	(\$1)	67%
Total	\$77,502	\$60,351	\$620,015	\$568,305	\$930,022	(\$51,710)	61%

6. CAPITAL PLANNING

6.1 APPROVED CIP PROJECTS CURRENT STATUS

- Engineering began January 12, 2015. Estimated cost is approximately \$30,000 depending on final design plans.
- A permit was submitted to the Illinois EPA for new Fluoride pumps on December 21, 2015. Once approved, a Fluoride pump will be purchased and installed.
- The construction permit required for the sodium permanganate pilot study was received by the IEPA on November 10, 2015. There is a minimum 40 day wait time before IEPA can be contracted regarding the status of the permit application. Dan Held contacted IEPA on December 30, 2015 to inquire about the status of the permit. IEPA indicated they had sent out a request for additional information on December 29, 2015.

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.