

Monthly Operating REPORT

June 2015

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So. Sangamon
July 21, 2015

woodardcurran.com

COMMITMENT & INTEGRITY DRIVE RESULTS



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EXECUTIVE SUMMARY

Woodard and Curran assumed responsibility of the South Sangamon Water System on May 1, 2015. Prior to assuming responsibility, we started setting up for the transition of the system by developing a transition plan and coordinating a series of meetings in order to have a smooth and seamless transition. Members from Woodard & Curran's safety, IT, and SCADA transition support teams were onsite in addition to other members supporting the accounting, insurance, compliance, and administrative needs.

Safety is the #1 priority as part of the transition and daily operations. There were no Lost Time accidents during the month of June and the required monthly safety training was completed.

All regulatory reporting and sampling requirements were performed for the month, and the water quality met all IEPA limits. The plant produced a total of 31.54 MG for the month and there were no disruptions of service. We continue to experience slight exceedances of Chlorine concentrations on the lagoon discharge.

There were three customer inquiries for the month of June.

The installation of the preventative computerized maintenance management system (SEMS) is an ongoing effort. We started some preventative maintenance activities and will continue to build the maintenance management system as part of the implementation of the preventative, predictive, and corrective maintenance program. We had one service call to the plant in June to address necessary repairs to (2) two of the dehumidifiers.

Woodard & Curran is working with the SSWC and engineers to develop a Capital Improvement Plan. The plan will be a 1-5 year plan summarizing potential projects required to address regulatory, safety, reliability, maintenance, or water quality issues. The current capital plan which includes current costs and suggested priorities is an on-going effort and will be discussed in detail at the June meeting.

Woodard and Curran has hired Mr. Keith Sommers as an Operator Trainee. Keith attended the Environmental Resource Training Center from over the past several months and when he has completed the course requirements is eligible to take both his Class C water license and his working on his Class IV wastewater license. Training needs for the various processes, operations software tools, and maintenance are being developed to support the operation's needs.

Mr. Derek Burton was on site from June 23, 2015 to June 26, 2015 as part of the transition plan. His primary function was to set up the maintenance program for the equipment in the plant. The maintenance program will generate work orders for maintenance on the equipment and work done on the equipment when service is needed. We will continue to build these program as we move forward.

A financial summary is provided showing the costs are \$93,697 under for the year to date. The cool wet summer has reduced demand for water in the first (2) two months of the fiscal year.



1. SAFETY

1.1 SAFETY TRAINING

Joanna Wallace continues to provide Site specific training as well as guidance through the Pure Safety monthly training for Woodard and Curran staff.

1.2 LOST TIME ACCIDENTS

There were no lost time accidents

1.3 SAFETY AUDIT

Joanna Wallace was on site May 20, 2015 to perform a safety audit of both the plant and well field.

1.4 MISCELLANEOUS SAFETY

The safety audit of the plant conducted May 20, 2015 produced a list of 89 items that need to be addressed. To date, we have also completed approximately 33 percent of the 89 items. We will continue to address each of these items in the coming months. A copy of the issues discovered during the audit is included at the back of this report.



2. COMPLIANCE, FLOWS, AND LOADINGS

2.1 COMPLIANCE

The effluent quality was within regulatory limits and all reporting and sampling requirements were met for June. We continue to experience a slight Free Chlorine exceedance of the NPDES discharge limit. The annual Consumer Compliance Report was completed in mid-June and mailed to each customer by Laura VanProyen on July 10, 2015.

At a previous meeting, Total Dissolved Solids (TDS) were mentioned as a possible problem with the water quality in Chatham. Woodard and Curran sampled on June 11, 2015. The results of the tests are outlined below:

Plant Influent – 334
Post Filtration – 338
Plant Effluent – 340

There is no federally enforceable standard for total dissolved solids in drinking water. EPA set a non-enforceable secondary standard of 500 mg/L.



2.2 INFLUENT FLOWS AND LOADINGS

The total water produced for the month of June was 36.99 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

June 2015 - Influent Concentrations and Flow								
Day	pH	Temp	Fe	Mn	Fluoride	Hardness	Alkalinity	Total
1	8.32	16.6	0.92	0.205	0.28	362	276	1.349
2	8.18	16.4	0.84	0.204	0.28	366	280	1.227
3	7.56	13.5	0.54	0.209	0.27	362	280	1.310
4	7.54	13.9	0.72	0.162	0.21	364	280	1.292
5	7.40	14.6	0.79	0.209	0.22	364	282	1.249
6	6.72	15.0	0.92	0.218	0.49	356	270	1.241
7	6.46	14.8	0.89	0.213	0.32	358	276	1.378
8	7.53	14.2	0.92	0.203	0.31	362	276	1.359
9	7.57	15.2	1.03	0.206	0.23	366	280	1.219
10	7.57	14.3	0.56	0.184	0.26	368	282	1.325
11	7.37	17.8	0.76	0.197	0.09	366	276	1.292
12	7.56	14.0	0.82	0.207	0.32	368	282	1.303
13	7.55	14.8	0.98	0.198	0.22	370	280	1.279
14	7.55	14.8	0.58	0.213	0.22	366	280	1.190
15	7.42	14.6	0.90	0.206	0.22	366	278	1.228
16	7.69	15.7	0.96	0.205	0.24	368	280	1.092
17	7.70	14.6	0.84	0.219	0.17	366	280	1.119
18	7.67	14.7	0.53	0.205	0.33	368	282	1.138
19	8.16	17.0	0.52	0.195	0.19	362	282	1.084
20	6.66	13.9	0.82	0.207	0.29	350	280	1.239
21	6.78	14.4	0.81	0.209	0.10	358	272	1.199
22	7.81	16.0	0.90	0.206	0.27	368	284	1.293
23	7.50	14.5	1.02	0.215	0.27	364	280	1.128
24	7.55	14.3	1.08	0.210	0.29	372	286	1.172
25	7.71	14.7	0.97	0.207	0.24	364	286	1.135
26	6.61	13.9	1.06	0.222	0.55	356	276	1.159
27	6.80	14.0	0.98	0.224	0.43	360	272	1.263
28	8.60	17.4	0.79	0.213	0.14	348	274	1.278
29	7.83	16.3	0.76	0.203	0.28	364	282	1.188
30	7.39	14.4	0.55	0.202	0.26	366	282	1.262
Min	6.46	13.5	0.52	0.162	0.09	348	270	1.084
Max	8.60	17.8	1.08	0.224	0.55	372	286	1.378
Avg	7.49	15.0	0.83	0.206	0.27	352	279	1.233



2.3 EFFLUENT CONCENTRATIONS

The facility produced 31.54 MG of finished water during the month of June with a daily average of 1.05 MG and a min/max of 0.947/1.175 MG. The effluent water quality concentrations are summarized below in Table 2.3

Table 2.3

June 2015 - Finished Water Quality										
Date	pH	Temp	Fe	Mn	Fluoride	Hardness	Alkalinity	Phosphate	Free CL2	Total CL2
1	7.99	15.0	0.00	0.023	0.62	122	278	1.15	1.0	1.1
2	7.82	15.6	0.00	0.030	1.20	120	252	1.25	1.4	1.5
3	7.75	16.0	0.00	0.049	0.71	120	268	1.23	1.5	1.5
4	7.73	17.3	0.00	0.026	0.78	120	258	1.28	1.4	1.6
5	7.45	16.2	0.00	0.044	0.78	116	275	1.26	1.5	1.5
6	6.48	15.3	0.00	0.031	1.16	116	252	0.81	1.4	1.6
7	6.60	17.0	0.00	0.026	1.21	112	268	1.18	1.4	1.6
8	7.75	16.8	0.00	0.022	0.96	120	278	1.17	1.5	1.5
9	7.80	17.2	0.00	0.029	1.16	122	268	1.23	1.5	1.4
10	7.78	17.6	0.00	0.039	1.00	120	276	1.15	1.5	1.5
11	7.76	15.0	0.00	0.039	0.82	118	272	1.21	1.3	1.2
12	7.83	15.7	0.00	0.031	0.91	122	268	1.14	1.3	1.4
13	7.80	15.9	0.00	0.045	1.00	120	262	1.13	1.1	1.2
14	7.84	15.9	0.00	0.039	0.93	112	270	1.15	1.1	1.2
15	7.52	16.4	0.00	0.049	1.13	120	272	1.06	1.3	1.3
16	7.82	14.7	0.00	0.038	0.84	120	262	1.10	1.4	1.5
17	7.77	14.6	0.00	0.049	0.98	118	242	1.15	1.3	1.4
18	7.68	15.2	0.00	0.039	1.01	118	272	1.14	1.2	1.3
19	7.96	15.4	0.00	0.028	0.85	116	272	1.15	1.1	1.2
20	6.72	14.8	0.00	0.035	1.17	122	270	0.98	1.2	1.3
21	6.66	16.5	0.00	0.026	1.37	116	262	1.18	1.2	1.2
22	7.67	14.7	0.00	0.037	1.05	120	176	1.26	1.5	1.6
23	7.60	14.6	0.01	0.035	0.93	122	258	1.18	1.3	1.3
24	7.64	14.5	0.02	0.040	0.97	122	278	1.13	1.1	1.3
25	7.70	14.3	0.01	0.034	0.92	118	280	1.26	1.3	1.4
26	6.69	15.5	0.00	0.026	1.31	122	262	1.20	1.2	1.2
27	6.73	15.7	0.00	0.031	1.29	124	268	1.12	1.2	1.2
28	6.62	17.1	0.00	0.035	1.10	114	268	0.98	1.2	1.2
29	7.64	14.3	0.00	0.045	1.12	112	272	1.21	1.3	1.3
30	7.72	14.6	0.01	0.068	0.07	122	272	1.16	1.4	1.4
Min	6.48	14.3	0.00	0.022	0.07	112	176	0.81	1.0	1.1
Max	7.99	17.6	0.02	0.068	1.37	124	280	1.28	1.5	1.6
Avg	7.48	15.7	0.00	0.036	0.98	119	264	1.15	1.3	1.4



2.4 LAGOON DISCHARGE CONCENTRATIONS

The results for the June NPDES lagoon discharge permit are summarized below. As noted earlier, we continue to experience a slight exceedances of the Chlorine concentration.

Table 2.4 - Weekly Grab Sample Analysis Results

Date	Fe (mg/l)	Mn (mg/l)	Chloride (mg/l)	Cl² (mg/l)	pH (S.U.)	TSS (mg/l)
06/01/2015	1.91	.889	370	.361	7.82	7.00
06/08/2015	0.27	.074	385	.000	8.11	0.00
06/15/2015	0.32	.124	361	.109	8.19	0.00
06/22/2015	0.72	.312	350	.346	7.89	5.00
06/29/2015	0.52	.521	385	.402	8.02	0.00
Minimum	0.27	.074	350	0	7.82	5.00
Maximum	1.91	.889	385	.402	8.19	7.00
Average	0.75	.384	370	.243	8.00	2.40
Monthly Avg Limit	2.0	1.0	-	-	-	15
Daily Limit	4.0	2.0	500	0.05	6.0-9.0	30



3. OPERATIONS

3.1 EVENTS IMPACTING OPERATIONS

The Master PLC which runs the overall operation of the computers at the plant crashed on June 11, 2015. The controllers were reset and the system was back up and running in approximately one hour. Woodard and Curran SCADA staff are investigating into why this event took place.

On June 11, 2015, we discovered an inordinate amount of starts on the lagoon influent pumps. Upon investigation we found the low level float in the Lagoon Influent Pump pit was causing the issue. For now, we have removed the low level alarm from the Lagoon Influent Pump pit until repairs can be made.

We were unable to get a clean Bac-T sample for Well 5. Brotcke Well and Pump was at the plant on July 14, 2015 and disinfected the well. We are attempting to get two consecutive samples so we can put Well 5 back on line as soon as possible.

3.2 EMERGENCY & SERVICE CALLS

3.2.1 Emergency Call-outs

There were no emergency call-outs for June 2015.

3.3 CUSTOMER INQUIRIES

Three customer inquiries were received during the month of June:

1. Terry Burke, Chatham: Terry called and said Dustin had told the chlorine was at 1.9 at the shop and wanted to know if any changes had been made. Told him no changes were made.
2. Dustin Patterson, Chatham: Dustin called to tell me the chlorine in Chatham was consistently at 1.1 to 1.2 mg/L all over town. Action: I lowered the chlorine feed to 1.1 mg/L at the plant and Dustin is monitoring results.
3. Lee Duffy, Chatham: Mr. Duffy said his daughter is having trouble washing her hair, wanted to know what kind of whole house filter to put in. I told him that I couldn't recommend any particular brand, but I would ask whomever you decide to work with that they analyze the water coming in and make sure the filter will block whatever it is coming into the house.

3.4 MAINTENANCE AND REPAIR

Woodard and Curran uses a proprietary software calls SEMS to track preventative, predictive and corrective maintenance on all equipment associated with the plant. Installation of the preventative computerized maintenance management system (SEMS) is an ongoing effort. We have started some preventative maintenance activities. A summary of the work completed for the month of June is attached at the end of this report



We had one service call to the plant in June to address:

- Leak in the roof on the northeast corner of the building: A Leak in the roof on the northeast corner of the building was discovered on May 6, 2015. Henson Robinson was called and arrived at the plant on May 11, 2015 to inspect and fix the roof. No apparent leak was discovered, but they did caulk the areas where they thought perhaps water could be getting in. This failed to fix the issues

I have asked Henson Robinson to send a supervisor out to examine the roof to determine where the leak is at. Once identified, field personnel will be dispatched to do the necessary repairs.

We reported in June that due to the amount of electronic in the SSWC plant, it's important that humidity levels remain low in the plant. Once the humidity levels began to rise we discovered that two (2) of the six (6) dehumidifiers were not working in the plant. At that time we found that two that were not working. The necessary parts were ordered and arrived at the plant on June 15, 2015. Petersburg Plumbing and Heating installed the parts and the humidifiers are all in service.

3.5 PHOSPHATE BLEND CHANGE

Water Solutions Unlimited is recommending we change phosphate we're currently feeding. We have just started 75/25 blend.



4. PROJECT MANAGEMENT & SUPPORT

4.1 STAFFING & TRAINING

- Woodard and Curran hired Mr. Keith Sommers on July 15, 2015. Keith Sommers started on July 17, 2015. His initial training will begin with learning to operate the plant and to do IEPA required testing. Dan Held is training him to do the routine maintenance required around the plant. Once Keith has completed his initial training, his primary responsibility will be the maintenance of the equipment in the well field and the plant.

4.2 CORPORATE SUPPORT

- Mr. Doug McKeown, Chief Executive Officer of Woodard and Curran and Mr. Steve Niro, Strategic Business Unit Leader were at the plant on June 3, 2015
- Mr. Derek Burton, Senior Operations and Maintenance Specialist was on-site June 23, 2015 through June 26, 2015.
- Mr. Brian Ravens, Comptroller from the St. Charles office, was on-site June 10, 2015.
- Transition Plan meetings being held bi-weekly.
- Capital Improvement Plan meeting held June 16, 2015



4.3 BUDGET

The second month's financial summary is provided below in Table 4.1 showing the costs are \$93,697 under for the year to date. As part of the transition, several of the monthly expenditures have likely carried over into June explaining the significant difference between budget and actual expenses.

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	\$15,706	\$38,374	\$22,681	\$230,244	(\$15,693)	10%
Utilities	\$8,320	\$121	\$16,640	\$121	\$99,840	(\$16,519)	0%
Chemicals	\$16,388	\$6,061	\$32,776	\$14,450	\$196,655	(\$18,326)	7%
Maintenance and Repair Costs	\$8,299	\$1,028	\$16,598	\$1,028	\$99,585	(\$15,570)	1%
Sludge	\$13,813	\$105	\$27,627	\$105	\$165,760	(\$27,522)	0%
Lab Supplies & Equipment	\$1,530	\$1,249	\$3,059	\$1,249	\$18,355	(\$1,810)	7%
Office Supplies	\$188	\$0	\$375	\$2,368	\$2,250	\$1,993	105%
Miscellaneous Expenses	\$1,213	\$1,977	\$2,425	\$2,614	\$14,550	\$189	18%
Other Operating Costs	\$278	\$117	\$557	\$117	\$3,339	(\$440)	4%
Subtotal of Costs for Contract Year 2	\$69,215	\$26,364	\$138,430	\$44,733	\$830,578	(\$93,697)	5%
Fixed Fee for Contract Year 2	\$6,922	\$6,922	\$13,843	\$13,843	\$83,059	\$0	17%
Total	\$76,136	\$33,286	\$152,273	\$58,576	\$913,637	(\$93,697)	6%



5. CAPITAL PLANNING

5.1 CURRENT PROJECTS STATUS

Sampling Stations in the Well Field: On June 2, 2015, Mr. Terry Burke and Dan Held met with the Illinois Environmental Protection Agency to discuss a number of project. One issue discussed was the sampling locations in the well field and the classification of the SSWC plant as “under the influence of surface water”. During these discussions, Mr. David Cook recommended sampling stations be installed. He also suggested that in the future it’s possible the current sample locations will not be allowed.

During inspection of the plant by Safety personnel from Woodard and Curran, the current sample locations are located inside concrete pits at the individual well sites. This location has been designated a confined space. Because of this designation, two people will be required to pull well samples and special equipment will need to be set up at each location each time a sample is drawn.

Sampling stations can be installed at each well that will not require entry into the current sample locations. The total cost for the sampling stations and the labor to install the sample stations is approximately \$15,000. Two bids were obtained for the sample stations: \$785 each from Midwest Meter and \$829 each from IMCO Utility Supply. The cost to install the sample station is \$8,320. The sampling stations arrived at the plant on July 13, 2015. A date for installation of the sampling stations will be determined once flooding in the well field has subsided.

Citric Acid Pump: As you may be aware, we are in possible litigation with Hydro-Kinetics on the citric acid pump. I have received a quote from Municipal Equipment, the same company who provided the chlorine pumps we’re currently using, for replacement of this pump. The cost is \$3,944.00. Last years budget approved the purchase of this pump. We are requesting permission to purchase the new pump at a cost of \$3,944.00 and have the pump installed.

5.2 DRAFT CAPITAL IMPROVEMENT PLAN

Audit Findings Report

Audit: South Sangamon Water District: May 22, 2015

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An Occupational Health and Safety Review was conducted at the above referenced site and the following report summarizes the findings. While a number of items are outlined for your review, they only reflect the observations made during the visit and should not be considered all-inclusive. The site review focused primarily on conducting an assessment of written programs, work procedures, and the physical plant. If you have any questions with respect to this summary, please contact the H&S auditor at 800-462-4262.

#	Finding Title	Corrective Action Recommended	Federal Citation	Corrective Action Taken	Completion Date
Ammonia Room					
62	Ammonia Room not in use	Ammonia is not used in the process, but is present in the Ammonia Room.		Remove ammonia from site if no longer in use.	
61	No fall protection	There is no fall protection device installed at the top of the ladder in the Ammonia Room to prevent someone from falling greater than 4 feet to the surface below.	29 CFR 1910.23(b)(1)	Chain is in place, attached picture of similar corrective action	6/24/2015
Chlorine Room					
59	No fall protection	There is no fall protection device installed at the top of the ladder in the Chlorine Room to prevent someone from falling greater than 4 feet to the surface below.	29 CFR 1910.23(b)(1)	Add a chain to prevent a person from falling to the level below. Ensure the chain is in place whenever someone is not accessing the ladder.	6/24/2015
60	Unlabeled chlorine day tank.	Unlabeled chlorine day tank.	29 CFR 1910.1200(a)(2)	Label the chlorine day tank.	
Citric Acid Room					
58	Floor in disrepair	Floor in day tank area is pitted and may cause a tripping hazard. During heavy rain storms, groundwater penetrates floor.	29 CFR 1910.22(a)(2)	Repair floor.	
54	No fall protection	There is no fall protection device installed at the top of the ladder in the Citric Acid Room to prevent someone from falling greater than 4 feet to the surface below.	29 CFR 1910.23(b)(1)	Add a chain to prevent a person from falling to the level below. Ensure the chain is in place whenever someone is not accessing the ladder.	6/24/2015
57	Old citric acid leak	Old citric acid leak is not cleaned up from wall next to citric acid pump.	29 CFR 1910.22(a)(1)	Clean up the residue on the wall left from the citric acid leak.	
55	Small Citric Acid Pump	The smaller citric acid pump in the citric acid room (pump on left in photo) is not in use, but is still connected to the citric acid day tank.		If the pump will never be used, consider removing the pump from service. If the pump may be used in the future, remove the tubing connecting the pump to the day tank to prevent the tubing from falling and causing a citric acid spill.	
Electrical Room					
71	DigitTrace Heat Controller	When there is an alarm on the DigitTrace Heat Controller Assembly, employees must open the panel to reset the alarm. This activity is to be performed by a qualified electrical worker due to the arc flash potential.		Provide employees with Qualified Electrical Worker Training and arc flash PPE or, if feasible, install a remote reset button that can operate through SCADA or from outside the cabinet.	W&C Policy
70	Storage	Items stored in close proximity to electrical cabinets.	29 CFR 1910.303(g)(1)	Move materials to maintain at least 3 feet of clearance in front of electrical equipment.	
Fire Sprinkler Room					

#	Finding Title	Finding	Corrective Action Recommended	Federal Citation	Corrective Action Taken	Completion Date
81	General housekeeping	General housekeeping ? many materials on floor that could trip a worker and there is a sticky substance on the floor with dead bugs stuck to it.	Tidy up work areas. Move materials to maintain at least 3 feet of clearance in front of electrical equipment.	29 CFR 1910.22(a)		
80	Material storage	Material storage in front of electrical equipment.		29 CFR 1910.303(g)(1)		

General

7	Chemical rooms are under constant vacuum	Chemical rooms are under constant vacuum. The ventilation system in the chemical rooms is reported to have been installed for use during spills. However, plant employees were instructed to operate the ventilation system at all times because there is no other ventilation system in the room. There is no supply air to the room, only return air, creating negative pressure in the room.	Install supply air vents in the chemical rooms or redesign ventilation system to allow for appropriate ventilation. Note: this may also eliminate the need for voluntary respirator use.	Section 5(a)(1)		
6	Confined spaces are not clearly labeled.	Confined Space Labeling	Using the site-specific Confined Space Inventory as a guide, ensure all permit-required confined spaces are labeled. (Example of appropriate verbiage: ?Danger! Permit Required Confined Space. Do Not Enter!?) Contact Wendy Foreman if signs or stencils are needed.	29 CFR 1910.146(c)(2)		
12	Contractor Policy	Lack of visitor/contractor safety orientation	Create orientation for visitors/contractors and review orientation with visitors/contractors.	W&C Policy		
32	Earing Protection	Lack of hearing protection available at the plant. Failure to protect the electrical outlet below the citric acid pump from moisture. Currently plastic sheeting is affixed over the wall with duct tape to prevent citric acid spills from accessing the electrical outlet.	Purchase ear plugs or ear muffs for use in areas with sound levels at or above 85 dBA. Protect the electrical outlet against citric acid contact with a more permanent solution, such as installing ?while-in-use? covers.	29 CFR 1910.95(b)(1)	Purchased assorted in ear plugs	6/4/2015
56	Electrical Outlet Protection	Employees who will be performing electrical lockout tagout (LOTO) work must participate in Woodard & Curran's Electrical Qualification Class.	Contact Wendy Foreman to coordinate the class, pre-requisite work, and ordering of an arc flash kit.	NEC 408.8	Cover installed	6/24/2015
29	Electrical Qualification Class			W&C Policy		

#	Finding Title	Finding	Corrective Action Recommended	Federal Citation	Corrective Action Taken	Completion Date
41	Emergency eyewash/shower combination units	Emergency eyewash/shower combination units are available in the chemical rooms on main walking level. However there are day tanks located on a second level below the main walking surface where there is potential for contact with corrosive materials if the day tank or associated hoses were to fail and there is no eyewash or shower unit immediately available for emergency use.	Install eyewash units on the lower levels of the chemical rooms where contact with corrosive chemicals is possible. Purchase bleach, a sharps container, and biohazard bags for plant use in the event of an emergency involving blood or OPIM. Purchase spill clean-up materials and PPE appropriate for incidental spill response.	29 CFR 1910.151(c) 29 CFR 1910.1030		
38	Equipment associated with BBP	Equipment associated with the Bloodborne Pathogen program are not available at the plant.	PPE appropriate for incidental spill response.	29 CFR 1910.132(a)		
42	Equipment for Spills	Equipment for incidental spill response is not available at the Plant. The fire alarm system needs to be inspected semi-annually, as well as all devices (pull stations, heat detectors, smoke detectors, etc.).	Set up a testing schedule and service with a licensed vendor.	NFPA72 - 14.1.1	Dan set up yearly inspection with fire alarm contractor. Was onsite 6/23/15	6/23/2015
19	Fire Alarm System	General housekeeping issues and lack of organization of equipment/material throughout facility.	Improve housekeeping and designate space for material and equipment storage.	29 CFR 1910.22(a)		
9	General housekeeping	No certified hazard assessment available for the plant.	Health & Safety to draft hazard assessments for review and revision by Plant Personnel.	29 CFR 1910.132(d)(2)		
36	Hazard Assessment Needed	Employees perform lawn maintenance activities and work around the high volume pumps with sound levels that will require their inclusion in the Hearing Conservation Program.	Provide the names of employees who can perform lawn maintenance activities or work in areas with sound levels above 85 dBA (e.g., high volume pumps) to Wendy Foreman for inclusion in the program. Alternatively, SSWC could install a sound reducing enclosure around the high volume pumps to reduce sound levels below 85 dBA, eliminating the need for hearing protection in the Main Plant area.			
15	Hearing Conservation Program	Employees have not received hearing conservation training.	Health & Safety to assign hearing conservation training to plant employees that is no longer needed.	29 CFR 1910.95(k)		
33	Hearing Conservation Training	Equipment and paint is left-over from building construction creating housekeeping issues.	Properly dispose of equipment and paint that is no longer needed.			
13	Housekeeping issues	HVAC system reportedly freezes up in the summer months, rendering the system useless. Currently employees use dehumidifiers in the summer to cut-down on humidity and space heaters in the winter to warm office areas.	Repair HVAC system so it functions properly to eliminate electrical hazards associated with space heater usage.			
14	HVAC					

#	Finding Title	Finding	Corrective Action Recommended	Federal Citation	Corrective Action Taken	Completion Date
1	Lack of a Chemical Inventory List	Lack of a Chemical Inventory List.	Create a list of the hazardous chemicals using an identity that is referenced on the SDS (e.g., essentially a table of contents list for the SDS book). Inspect equipment, including the forklift/mower prior to each day of use. Document the inspections. An example inspection checklist can be found in Appendix E of chapter 17 in the H&S Manual.	29 CFR 1910.1200(c)(i)		
17	Lack of equipment inspection records	Lack of equipment inspection records.	Health & Safety to draft a Pandemic/Epidemic Response Plan for review and revision by Plant Personnel.	29 CFR 1910.178		
35	Lack of Pandemic and Epidemic Response Plan	Lack of Pandemic and Epidemic Response Plan for the plant.	Develop SOPs including, but not limited to: changing filters, mowing, ladder climbing, check valve repair for ion exchange tanks, groundwater system sampling, hydrant flushing (if this will be a task Woodard & Curran will conduct), manual lifting hatch cover, manual lifting of manhole, weed whacking, chemical transfers, CIPs, and entry into any confined spaces.	W&C Policy		
16	Lack of SOPs/JSAs for project tasks.	Lack of SOPs/JSAs for project tasks.	Create a site-specific lockout/tagout program using the template available in Chapter 13, Appendix B of W&C's Health & Safety Manual. Energy control procedures should be written for permit-required confined spaces that Woodard & Curran employees may enter that have an engulfment hazard so the appropriate valves are identified and locked out prior to entry.	W&C Policy		
27	Lockout Tagout Program	Lack of a site-specific lockout/tagout program.	Provide employees with lockout/tagout training.	29 CFR 1910.147(c)(1)		
28	Lockout Tagout Training	Employees have not received lockout/tagout training.		29 CFR 1910.147(c)(7)		
26	locks and tags	There is no lock, locking device, or tag available. Note: employee reports the need to lock out valves, but does not perform electrical lockout/tagout.	Purchase locks, locking devices, and tags appropriate to use for lockout/tagout.	29 CFR 1910.147(c)(5)(i)	Purchased LOTO kit, installed in MCC room	6/23/2015
39	missing sds	Missing SDSs for sodium bisulfite and sodium chloride.	Include SDSs for the missing chemicals in the SDS binder.	29 CFR 1910.1200(g)		
37	No BBP plan	Employees at the plant may have exposure to blood or OPIM if performing CPR/first aid, but there is no site-specific Bloodborne Pathogen Exposure Control Plan for the plant.	Health & Safety to draft the plant-specific BBP Exposure Control Plan for review and revision by Plant Personnel.	29 CFR 1910.1030(c)(1)		
34	No EAP or FPP	No Emergency Action Plan/Fire Prevention Plan available for the plant.	Health & Safety to draft an Emergency Action Plan/Fire Prevention Plan for review and revision by Plant Personnel.	29 CFR 1910.38 and 29 CFR 1910.39		

#	Finding Title	Finding	Corrective Action Recommended	Federal Citation	Corrective Action Taken	Completion Date
23	No first aid kit onsite.	No first aid kit onsite.	Purchase first aid kit for the site.	W&C Policy	First aid kit installed next to break room door in main process area.	6/23/2015
31	No GFCI available at plant.	No GFCI available at plant.	Purchase GFCIs and use GFCIs at all extension cords and power tools. Purchase locks, locking devices, and tags appropriate to mark equipment as ?out of service.? Note: these locks and tags must be different than the lockout/tagout locks and tags.	29 CFR 1910.304(b)(3)	Purchased 2 GFCI's for plant	6/23/2015
30	Out of service device	There is no lock, locking device, or tag available for marking equipment as ?out of service.? Rescue services are reportedly more than 15 minutes from the plant and employees are not trained in first aid/CPR.				
22	Rescue services	Two full-face, air purifying respirators stored improperly.	Provide first aid/CPR training to employees and have employee maintain certification.	W&C Policy		
10	Respirator Storage	Rooms not identified with visible signage.	Store respirators in a sealable bag to protect the respirators from damage, contamination, dust, sunlight, excessive moisture, damaging chemicals, and extreme temperatures.	29 CFR 1910.134(h)(2)	respirator is currently stored in a bag.	6/18/2015
21	Room Signage	Verify that SDSs are current for the chemicals on site and have a current date (within last 5 years). Note: (M)SDSs are considered ?exposure records? and, as such, we are required to maintain them for 30 years ? regardless of whether we are currently using the chemical or not. Therefore, if you have MSDSs for chemicals no longer in use, keep them in a separate section in the back of the MSDS book.	Post visible signage.			
40	SDS's not MSDS's	As of June 1, 2015 chemical suppliers should begin providing and SDS with chemical shipments rather than MSDSs.		29 CFR 1910.1200(g)		
18	skid steer	There is a skid steer at the plant with forklift attachment, but employees do not have forklift training.	Provide forklift training to employees who will operate the forklift. If the skid steer is sold and replaced with a different forklift unit, ensure employees receive training on the new forklift unit.	29 CFR 1910.178(l)	Area specialist has fork lift training, staff currently trying to schedule training through Jake	6/24/2015
8	Trip Hazards	Changes in elevation throughout facility create trip hazards (e.g., raised berms and concrete pads, etc.).	Mark the changes in elevation to alert employees of the change in elevation. Contact Wendy Foreman if a ?Watch Your Step? stencil is needed.	29 CFR 1910.22(a)	"Curb side" of elevation change has been painted "safety" yellow.	6/24/2015
20	Truck Equipment	Field vehicle does not contain first aid kit, portable fire extinguisher, or eyewash bottles.	Purchase first aid kits, portable fire extinguishers, and portable eyewash bottles for all project vehicles.	W&C Policy		
4	Unclear if emergency eyewash/showers are being inspected on a weekly basis.	Emergency Showers/Eyewash	Conduct eyewash/shower inspections on a weekly basis, and ensure inspections are documented.	29 CFR 1910.151(c) ANSI Z358.1	Monthly PM has been loaded into SEMS	6/19/2015

#	Finding Title	Finding	Corrective Action Recommended	Federal Citation	Corrective Action Taken	Completion Date
3	Unclear if emergency lights are being tested.	Emergency Lights	Perform and document monthly testing. Repair/replace any non-functioning lights. In addition, exercise emergency lights annually for 90 minutes to make sure the batteries have enough charge. As batteries age they will only illuminate the emergency light breaker switches to aid in the testing.	29 CFR 1910.37(b) NFPA 101	Monthly PM has been loaded into SEMS	6/19/2015
5	Unclear if fire extinguishers are being inspected on a monthly basis.	Fire Extinguishers	Conduct monthly inspections of the fire extinguishers and ensure inspections are documented	29 CFR 1910.157(e)(2)	Monthly PM has been loaded into SEMS	6/19/2015
24	Voluntary Respirator Use	Employee voluntarily uses respirator, but has not received medical clearance or been fit tested for respiratory use.	Provide medical evaluation and fit test to all employees voluntarily using a respirator.	29 CFR 1910.134(c)(2)		
25	Worksite-specific procedure for respirator use	Lack of a worksite-specific procedure for respirator use due to voluntary respirator use onsite.	Health & Safety to draft procedure for review and revision by Plant Personnel.	29 CFR 1910.134(2)(ii)		

Laboratory

75	Extension Cord	An extension cord is used as a permanent fixture to power the printer, dehumidifier, and fan.	Plug the printer, dehumidifier, and fan into separate outlets without the use of an extension cord.	29 CFR 1910.305(a)(2)(i)		
73	Improper storage	A former Gatorade container is used to store Spadin's chemical solution.	As a best management practice, do not store chemicals in food containers, even if the container is labeled as to contents.		New nalgene bottles purchased for storage	6/22/2015
74	Small chemical refrigerator	Small chemical refrigerator is for sample storage, but is not labeled indicating it is for sample storage only.	Label freezer as "No Food or Drink Allowed in this Refrigerator" or similar.	Section 5(a)(1)		
72	Unlabeled containers	Unlabeled secondary containers of laboratory chemicals.	Ensure all chemical containers are labeled, including secondary containers.	29 CFR 1910.1200(a)(2)		

Main Plant

44	Electrical outlets and the motor controls	Electrical outlets and the motor controls around the brine pump line are not protected against moisture. When the bleeder valves on the brine pump line are opened, water sprays.	Protect the electrical outlets and motor controls against water contact by installing ?while-in-use? covers.	NEC 408.8		
48	Flammable cabinet needed	Flammable paints, solvents, and fuel are not in flammable storage cabinet.	Purchase a flammable storage cabinet and place flammables, including gasoline and diesel into the flammable storage cabinet.	29 CFR 1910.106(d)(3)	Purchased cabinet	6/22/2015
47	Hi-E Dry, 195 dehumidifier	Hi-E Dry 195 dehumidifier is plugged in with extension cord. Extension cords are to be used for temporary electrical power only.	Move the dehumidifier so it can be plugged directly into an outlet without the use of an extension cord or install an electrical outlet closer to the dehumidifier to eliminate the use of the extension cord.	29 CFR 1910.305(a)(2)(i)		

#	Finding Title	Finding	Corrective Action Recommended	Federal Citation	Corrective Action Taken	Completion Date
50	hoist inspection	No record of hoist inspection for either hoist (1.5 ton and 3 ton) at the plant. Load ratings are not available on the roof of the office/conference room areas and chemical rooms and these roofs are used for material storage.	Ensure hoists are inspected at regular intervals with the inspection documented.	ANSI B30.16 29 CFR 1910.179(i)		
51	Load ratings needed		Mark the load rating on the roof. Install fall protection device. Consider a portable safety rail system to be stored when not in use.	29 CFR 1910.22(d)		
46	No fall protection	No fall protection available for opening of Raw Water Pit or Finished Water Pit.	Install fall protection on ion exchange softener or eliminate task from being conducted.	29 CFR 1910.23		
43	No fall protection	Employees periodically access the top of the ion exchange softener tanks, but there is no fall protection available and the tanks are greater than 4 feet.	Install guard rails on the interior roofs of the chemical rooms and periodically stand on these roofs to access equipment or for storage purposes.	29 CFR 1910.23(c)(1)		
52	No guard railings	No guard railings present on the roof of the office/conference rooms or the roof of the chemical rooms and employees periodically stand on these roofs to access equipment or for storage purposes.	Install a staircase (or purchase a mobile staircase) to ease access to the roof area for maintenance/storage purposes, if feasible.	29 CFR 1910.23(a)		
53	Roof Access	There is no staircase available to access the roof of the office/conference rooms.	Add a retractable handle or create a hole in the grated covers so that a tool can be used to more easily open the grated covers.			
45	The grated covers for the Raw Water Pit	The grated covers for the Raw Water Pit and the Finished Water Pit do not have a handle or easy means of opening. The grated covers are approximately 40 pounds and are difficult to open.	Mark the trip hazards to alert employees of the change in elevation. Contact Wendy Foreman if a ?Watch Your Step? stencil is needed.			
49	Trip hazards	Trip hazards are presented by the equipment installed for the intake line that is not in use including the platform for the intake line, a white pipe, and a small hole in the ground (currently covered by an unused filter to prevent trips).		29 CFR 1910.22(a)		

Office & Shower Area

78	Freezer	Freezer is not labeled indicating that it is for sample storage only.	Label freezer as ?No Food or Drink Allowed in this Freezer? or similar.	Section 5(a)(1)		
79	Inadequate lighting in shower.	Temporary light powered by extension cord in shower area due to inadequate lighting in shower.	Remove temporary light from shower area and install a permanent lighting solution appropriate for wet environments.	29 CFR 1910.305(a)(2)(i)		
87	no secondary containment	Two drums of sodium bisulfite 40% solution stored outside without secondary containment.	Move the two drums indoors on secondary containment to capture any spills resulting from drum failure. If the sodium bisulfite in the drums will not be used, dispose of as waste.			
77	Refrigerator	Refrigerator is for food storage, but is not labeled indicating that samples are not to be placed inside.	Label refrigerator as ?Food Only, No Samples? or similar.	Section 5(a)(1)		

#	Finding Title	Finding	Corrective Action Recommended	Federal Citation	Corrective Action Taken	Completion Date
76	The door to the shower room is not labeled.	The door to the shower room is not labeled.	Label to door to the shower room either as ?Shower Room? or ?No Exit.?	NFPA 101 Section 7.10.8.3		

Outdoor Area behind Main Plant

82	Brine tanks	Brine tanks are not labeled with contents.	Label brine tanks.	29 CFR 1910.1200(a)(2)		
86	General housekeeping	General housekeeping issues under aerator.	Improve housekeeping.	29 CFR 1910.22		
83	no labeling	The cleanwell, aeration/detention, and high chloride tanks are not labeled with contents.	Label all tanks.	29 CFR 1910.1200(a)(2)		
85	recycling bins are open	Dumpster and recycling bins are open.	Ensure recycling and dumpster bins are closed when not being added to or dumped from to prevent rainwater from accessing the interior.		Closed, made staff aware of importance of keeping closed	6/19/2015
84	The aerator platform	The aerator platform is missing a chain across the ladder opening.	Add a chain to prevent a person from falling to the level below when working on the platform.	29 CFR 1910.23(b)(1)	Installed swing gate	6/23/2015

Phosphate Room

65	Fire extinguisher is blocked.	Fire extinguisher is blocked. There is no fall protection device installed at the top of the ladder in the Phosphate Room to prevent someone from falling greater than 4 feet to the surface below.	Move fire extinguisher to a location where it is easily accessible.	29 CFR 1910.157(c)(1)		
63	No fall protection		Add a chain to prevent a person from falling to the level below. Ensure the chain is in place whenever someone is not accessing the ladder.	29 CFR 1910.23(b)(1)	Installed chain	6/23/2015
66	sodium hypochlorite drums	Two drums of sodium hypochlorite are present in the Phosphate Room.	Move these drums to the sodium hypochlorite room. If they are no longer needed, properly dispose.			
64	Unlabeled Tank	Polyphosphate day tank is unlabeled.	Label tank with contents.	29 CFR 1910.1200(a)(2)		

Sodium Hypochlorite Room

69	General housekeeping	General housekeeping is poor. There are dead bugs on the floor and the eyewash/shower unit is blocked by material.	Try up area and maintain clear access to shower/eyewash station	29 CFR 1910.22(a) 29 CFR 1910.151(c) ANSI Z358.1		
67	No fall protection	There is no fall protection device installed at the top of the ladder in the Sodium Hypochlorite Room to prevent someone from falling greater than 4 feet to the surface below.	Add a chain to prevent a person from falling to the level below. Ensure the chain is in place whenever someone is not accessing the ladder.	29 CFR 1910.23(b)(1)	Chain is in place	6/23/2015
68	Unlabeled Tanks	Sodium hypochlorite totes (2) and day tank are unlabeled.	Label with contents.	29 CFR 1910.1200(a)(2)		

Wells

90	Cumbersome situation	Fall protection system on ladder to well platform is reported to be cumbersome.	Obtain training for employees on the fall protection system in place on the well platform and aeration platform. Alternatively, for fixed ladders less than 20 feet, the fall protection system could be removed.		Purchased new two clasp harness with fall arrestor that will work at all towers as a brmp	6/23/2015
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#	Finding Title	Finding	Corrective Action Recommended	Federal Citation	Corrective Action Taken	Completion Date
88	The Well Platforms	The well platforms lock from the top. Some of the keys to these platforms are missing and can cause a person to get stuck at the top of the platform with no way down.	Replace missing keys and consider connecting one key to each platform with a tether so that a person does not lock himself on top of the platform with no way to come down.			
89	Well entry	Well entry is required to collect periodic water samples. The wells are permit-required confined spaces, but there is no evidence that plant employees have received permit-required confined space training and there is no equipment available for confined space entry (e.g., tripod, air monitoring equipment, etc.).	Train employees in permit-required confined space entry and provide appropriate equipment for safe entry. Alternatively, sampling stations could be placed at ground level at eight of the ten wells to prevent entry from being necessary. Note: two wells already have sampling stations at ground level.	29 CFR 1910.146	Currently using staff from other midwest plants to perform confined space entry. The well sample ports are in the process of being relocated to a non-confined space for ease of access.	6/9/2015



South Sangamon Water

Work Order Status and Summary Report

For Dates between 06/01/2015 and 06/30/2015

System Name	Scheduled WOs Completed	Other WOs Completed	Outstanding	Total All WOs	% Scheduled Completed	% Other Completed	% Outstanding	Prior Outstanding	Prior Completed
South Sangamon Water	0	21	2	23	0 %	91 %	9 %	0	0
Company Total	0	21	2	23	0 %	91 %	9 %	0	0

Revision Date: 06/22/2015

Last Updated 5/12/2015

PROJECT GENERAL						
Issue	Recommended action	Capital	Design	Construction Insp	Total	Priority
Air Handling System for the Conference Room, Lab, and Break Room	Current system is oversized, freezes, and is noisy	\$25,000			\$25,000	3
Installation of Green Sand Filters	Being considered for water quality and operations cost purposes	\$1,500,000		\$50,000	\$1,550,000	2
Install Bladder Tank for back up pressure system	Hydro-mechanical "bladder" tank to address IEPVA's consent order	\$30			\$30	1
Install elevated storage tank	Future growth, maintain pressure/reliability, and generate cost savings through reduced electric and maintenance costs	\$250,000			\$250,000	3
Total		\$1,826,030	\$0	\$80,000	\$1,978,030	

WELLS 1-10						
Issue	Recommended action	Capital	Design	Construction Insp	Total	Priority
Installation of injection port extensions	Required by IEPVA as part of the permit requirements for the injection port installation. The cost is \$3,090 per well	\$ 11,700			\$11,700	Approved
Installation of "dead legs" on 9 remaining wells	This critical installation was poor and is failing. Well #7 incurred damage to water freezing inside the shaft. The cost is \$450 per well	\$ 4,050			\$4,050	Approved
Installation of leaching and retrieval piping stations in the 20" and 14" lines from the well field to the plant	Needed to clean out the iron and manganese that accumulates in the 20" and 14" lines from the well field to the plant. This will reduce the slug loading on the membranes, allow for chemical feed, and allow operators to address reduced hydraulic capacity of the lines	\$ 250,000			\$250,000	1
Sampling Stations in the wellfield	Allow one person to pull samples; current sample ports are in a confined space, and IEPVA recently suggested the modifications should be made	\$ 15,000			\$15,000	1
Total		\$280,750	\$0	\$0	\$280,750	

AERATION						
Issue	Recommended action	Capital	Design	Construction Insp	Total	Priority
Modification to Aerator Doors	Current doors do not allow easy access for biannual inspection and cleaning of the aerator tubes	\$ 20,000			\$20,000	2
Installation of New Tubing	The current valve is manual and the installation of an automatic wasting valve will improve the process	\$ 5,000			\$5,000	2
Installation of 8" automatic wasting valve		\$ 20,000			\$20,000	5
		\$0			\$0	
Total		\$45,000	\$0	\$0	\$45,000	

DETENTION/MIXING TANK						
Issue	Recommended action	Capital	Design	Construction Insp	Total	Priority
Repair of CL2 conduit line to the detention tank	The conduit is broken and the ability to quickly replace the line creates a reliability issue	\$ 5,000			\$5,000	1
Cleaning and inspection of the detention tank, clear well, and high chloride tank	The plant has been in service for 2 years and the tanks should be taken down periodically for inspection and cleaning by a Vac Truck	\$ 6,000			\$6,000	2
		\$0			\$0	
Total		\$11,000	\$0	\$0	\$11,000	

WESTTECH FILTERS						
Issue	Recommended action	Capital	Design	Construction Insp	Total	Priority
Filter Replacement	The recommended life expectancy of the filters are 7-12 years. Recent inspections show they are still in good shape. The cost of each filter is \$8,000 and there are 22 filters on each of the three banks	\$600,000			\$600,000	4
Upgrade of IMI	The current OS in Windows XP	\$20,000			\$20,000	1
Windows XP conversion		\$50,000			\$50,000	2
Replacement of Valves	Westtech recommended replacement of the 35 valves at \$1500/valve. Not an immediate issue but will as they age	\$670,000		\$0	\$670,000	
Total		\$1,340,000	\$0	\$0	\$1,340,000	

ION EXCHANGE UNITS						
Issue	Recommended action	Capital	Design	Construction Insp	Total	Priority
Installation of injection port for citric acid and maintenance of the Ion Exchange Unit	The resin is seeing higher iron/manganese loadings that expected which is fouling the resin. The port will allow for a citric injection cleaning to restore the resin. This includes the pump. The spring 2014 analysis of the resin showed the resin was still in "good" shape	\$ 7,500.00			\$7,500	3
Solids separator on the Brine Tanks 1 and 2	Installation of a tank to collect the solids	\$ 10,000.00			\$10,000	2
		\$0			\$0	
Total		\$17,500	\$0	\$0	\$17,500	

CHEMICAL ROOMS						
Issue	Recommended action	Capital	Design	Construction Insp	Total	Priority
Air Handling System in Chemical Rooms	Safety issue	\$30,000			\$30,000	1
Purchase and installation of a redundant chlorine pump for the detention tank	There is not a redundant pump for back up purposes	\$3,500			\$3,500	2
Purchase and installation of a redundant chlorine pump for the finished water	There is not a redundant pump for back up purposes	\$3,500			\$3,500	1
Will require some electrical work		\$0			\$0	
Purchase a floccide pump	Properly sized for current flow and operations protocol	\$6,500			\$6,500	2
Removal of Ammonia tank	The ammonia system is not being used	\$10,000			\$10,000	3
Installation of a chlorine monitoring system	Will address regulatory and reliability needs	\$10,000			\$10,000	1
Installation of a brine pump to the lagoons	Chlorine residuals on the lagoon effluent are consistently above the NPDES permit	\$10,000			\$10,000	1
Total		\$63,500	\$0	\$0	\$63,500	

CLEARWELL						
Issue	Recommended action	Capital	Design	Construction Insp	Total	Priority
Cleaning of the clearwell along with the detention tank and high chloride tank	Requires periodic cleaning. The clearwell was last cleaned in 2014.	\$2,500			\$2,500	2
		\$0			\$0	
Total		\$2,500	\$0	\$0	\$2,500	

DRAFT

South Sangamon Water Commission Capital Improvement Plan 2015-2016

	Total	\$2,500	\$0	\$0	\$2,500
LAGOONS					
Issue					
Clean solids out of the lagoons					
Recommended action					
The lagoons have been in service for 2 years and the current level of solids indicate it needs to be cleaned out in the next 1-2 years. Dan solicited bids from 3 firms and the cost ranged from \$75K to \$100K.					
		Capital	Design	Construction Insp	Total
		\$75,000			\$75,000
					Priority
					3
					Status
					\$0
					\$0
Total		\$75,000	\$0	\$0	\$75,000

	Total	\$100,000	\$0.00	\$0.00	\$125,000.00
TRANSMISSION MAIN					
Issue					
Installation of an actuated valve to allow SCADA control of the Ground Reservoir Tank					
Recommended action					
????					
		Capital	Design	Construction Insp	Total
		\$25,000			\$25,000
					Priority
					3
					Status
					\$100,000
					\$125,000.00
Grand Total		\$125,000.00	\$0.00	\$0.00	\$125,000.00
		\$2,815,280	\$0	\$50,000	\$2,865,280

Priority Scale
 1 - Highest
 5 - Lowest
 0 - Completed or in progress

Cost Summary
 Priority 1 \$359,280
 Priority 2 \$1,497,000
 Priority 3 \$389,000
 Priority 4 \$600,000
 Priority 5 \$0
 Priority 0 \$0
 Total \$2,845,280



QUOTATION

June 10, 2015

To: Dan Held; South Sangamon Water District

Project: Chemical Feed Pump Replacement

Dan,

Municipal Equipment Company is pleased to provide a quote for a Neptune chemical feed pump as follows:

One (1) Neptune 7100 Series Pump

- Model # 7120-2N5
- Motor driven chemical feed pump

One (1) VFD

- Model# VAC50 VFD

One (1) External Relief Valve

- Model # RV-PVC-050

One (1) One day of start-up

Pricing includes standard warranty.

Freight to the job site is not included in the pricing.

Total Price...\$3,944.00

Please contact us with any questions, or if you need any additional information. Thank you in advance for your trust and business.

Sincerely,

Municipal Equipment Company, Inc.

Don Buerk

217-820-5107 mobile
dbuerk@munequip.com



Standard Terms & Conditions

- Pricing is valid for 30 days from the date of the proposal unless otherwise noted
- Payment terms are NET 30 days subject to receipt of an acceptable credit application
- Estimated lead time for equipment is 4 to 5 weeks after receipt of approved submittals
- The price includes start-up assistance as indicated
- The price does not include any applicable taxes. Any applicable taxes will be added to the invoice unless a tax exempt certificate is provided to our office.
- Municipal Equipment Company acts solely as an equipment supplier.
- Order cancellation or re-stocking fees may apply if order is canceled.
- FOB Shipping Point
- Freight expenses are included in the pricing, unless otherwise noted.
- Manufacturers' standard terms, conditions, and warranties apply.

#####

If you would like to place an order for this equipment, please sign below and return to our office.

Accepted By (print name)

Signature

Company

Date



Series MP7100 "dia-PUMP"

Purpose

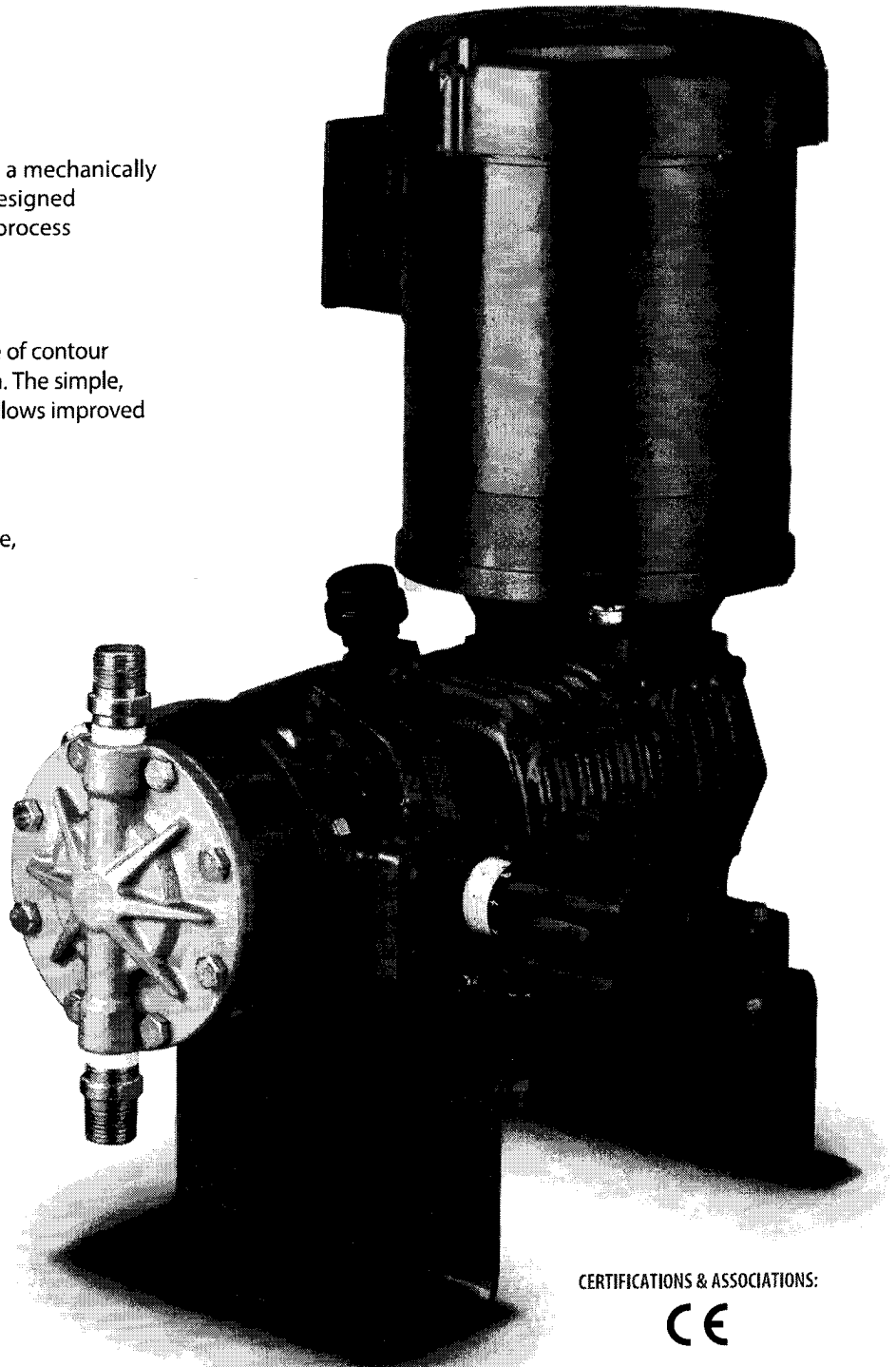
The Neptune Series 7000 "dia-PUMP" is a mechanically actuated diaphragm metering pump designed for water, wastewater, agricultural and process applications.

Benefits

The mechanical design eliminates the use of contour plates on the liquid side of the diaphragm. The simple, straight through valve and head design allows improved flow characteristics.

- Self-priming
- Superior performance when pumping chemicals such as sodium hypochlorite, which can off-gas
- Suction lift exceeding 20 ft. (6 m) on water-like chemicals
- Easily handles viscosities to 2,500 cps (for higher viscosity contact factory)

For Higher Pressures
request Bulletin DP-1100
and Bulletin DP-2000.



CERTIFICATIONS & ASSOCIATIONS:

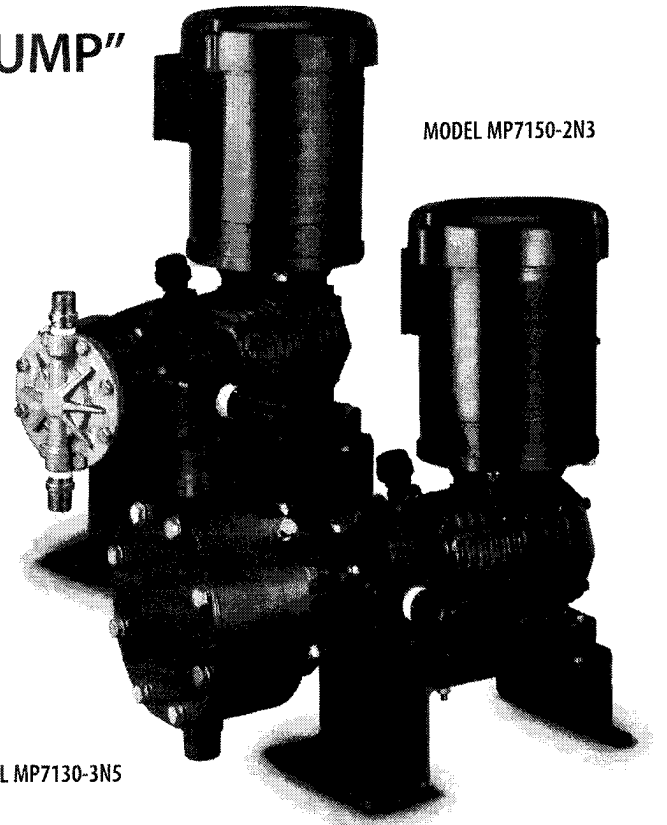


Neptune Series MP7100 "dia-PUMP"

Mechanically Actuated Diaphragm Metering Pumps

Features

- Capacities to 275 gph (1041 lph); Pressures to 235 psi (16 bar)
- Pump capacity is adjustable by micrometer dial while the pump is running
- 10 turn micrometer dial calibrated in 1% increments; Bright colored contrasted dial constructed of PVC
- Micrometer stroke length adjustment allows 10:1 turndown
- Variable speed drives allow greater turndown range or automatic capacity control
- All moving parts run submerged in oil for extended service
- All models accept standard 56C frame motors
- IEC motor adapter standard

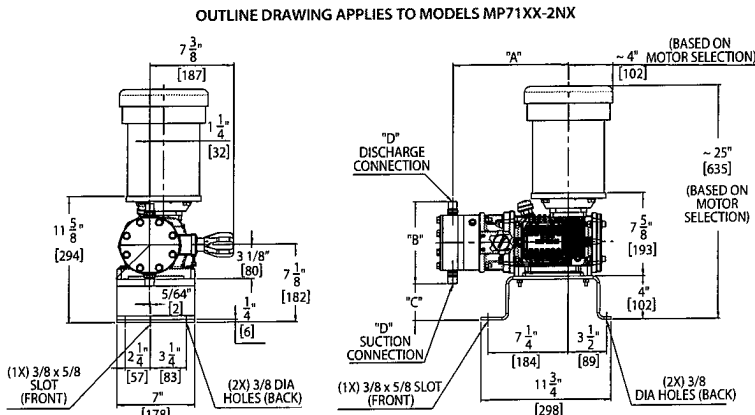


†Use next larger motor for VS drive or SCR drive applications.

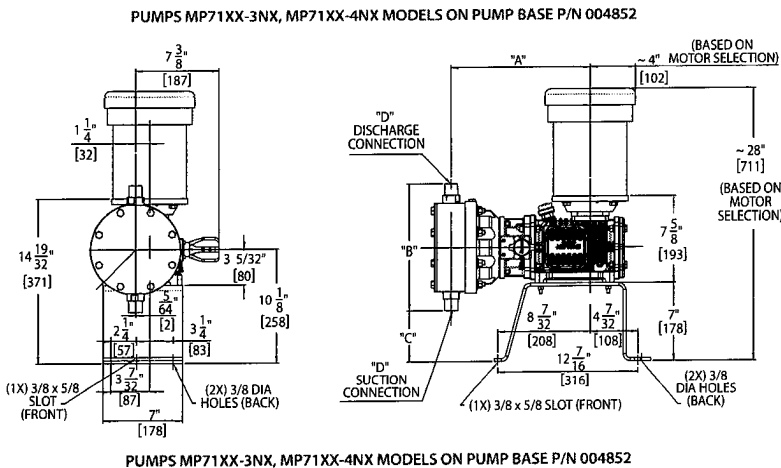
Selection Chart

Model #	Capacity @ 60 Hz (50 Hz)				Viscosity (CPS)	SPM		Stroke Length (mm)	Diaphragm Diameter (mm)	Motor Size Required				
	GPH		LPH			@ 60Hz	@ 50Hz			50 PSI (3.5 BAR)	75 PSI (5.25 BAR)	100 PSI (7 BAR)	150 PSI (11 BAR)	235 PSI (16 BAR)
	60 Hz	50 Hz	60 Hz	50 Hz										
MP7100-2NX	10	8.3	38	31.5	1000	37	31	5.0	100	1/3HP	1/3HP	1/3HP	1/3HP	1/2HP
MP7130-2NX	16	13.3	61	50.5	1000	58	48	5.0	100	1/3HP	1/3HP	1/3HP	1/3HP	1/2HP
MP7120-2NX	20	16.7	76	63.1	1000	72	60	5.0	100	1/3HP	1/3HP	1/3HP	1/3HP	1/2HP
MP7150-2NX	30	25.0	114	94.6	1000	117	98	5.0	100	1/3HP	1/3HP	1/3HP	1/2HP	3/4HP
MP7180-2NX	48	40.0	182	151.4	1000	176	147	5.0	100	1/3HP	1/3HP	1/2HP	1/2HP	3/4HP
MP7130-3NX	42	35.0	159	132.5	1000	58	48	5.8	150	1/2HP	1/2HP	1/2HP	1/2HP	
MP7120-3NX	52	43.3	197	164.0	1000	72	60	5.8	150	1/2HP	1/2HP	1/2HP	1/2HP	
MP7150-3NX	85	70.8	322	268.1	1000	117	98	5.8	150	1/2HP	1/2HP	3/4HP	1.0HP	
MP7180-3NX	120	100.0	454	378.5	1000	176	147	5.8	150	1/2HP	3/4HP	3/4HP	1.0HP	
MP7130-4NX	90	75.0	341	283.9	1000	58	48	5.8	200	1/2HP	1/2HP	3/4HP		
MP7120-4NX	112	93.3	424	353.3	1000	72	60	5.8	200	1/2HP	1/2HP	3/4HP		
MP7150-4NX	183	152.5	693	577.3	1000	117	98	5.8	200	3/4HP	3/4HP	1.0HP		
MP7180-4NX	275	229.2	1041	867.5	1000	176	147	5.8	200	1.0HP	1.0HP	1.5HP		

MP71XX-2NX Models



MP71XX-3NX, MP71XX-4NX Models



DIMENSIONS FOR PUMP OUTLINE DRAWINGS

Models	"A"		"B"		"C"		MNPT Thread "D" Connection Suction & Discharge
	HCAD	PVC, PVDF	SS	PVC, PVDF	SS	PVC, PVDF	
MP71XX-2NX	10-1/2"	10"	7-1/2"	7-1/2"	4-3/8"	4-3/8"	1/2" NPT
MP71XX-3NX	12-3/8"	12-3/8"	11-1/8"	11-3/4"	4-9/16"	4-1/4"	1" NPT
MP71XX-4NX	12-5/8"	12-1/2"	13-3/8"	13-7/8"	3-5/16"	3-7/32"	1-1/2" NPT

Materials of Construction

Material Code	Pump Head	Valve Check	Diaphragm
N3	316SS	316SS	PTFE
N5	PVC*	Ceramic	PTFE
N8	PVDF**	Ceramic	PTFE

* PVC Heads are suitable for temperatures to 125°F (50°C)

** PVDF Heads are suitable for temperatures to 200°F (93°C)

Application Information

1. External Relief Valve

An external relief valve is always required to protect the pump from the damage caused by over pressurization of the discharge line during operation.

2. Pulsation Dampener

Use of a pulsation dampener is required if the discharge pipe is over 10 ft. (3 m) long for the 71XX model and the discharge pressure is over 25 psi (1.75 bar).

3. Recommended Pipe Diameter and Length

	Pump Models		
	MP71XX-2NX	MP71XX-3NX	MP71XX-4NX
Suction Pipe Diameter	3/4" (19.1 mm)	1-1/2" (38.1 mm)	2" (50.8 mm)
Maximum Lift	20' (6 m)	20' (6 m)	16' (4.9 m)
Discharge Pipe Diameter	1/2" (12.7 mm)	1" (25.4 mm)	1-1/2" (38.1 mm)
Minimum Orifice At Injection Point	1/2" (12.7 mm)	1" (25.4 mm)	1-1/2" (38.1 mm)

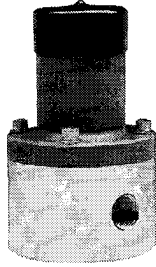
4. Use only Full Port Valves in suction and discharge lines.

Chemical Feed Accessories

Back Pressure Valves

PVC, 316SS and Alloy 20 standard. Can also be used as relief valves.

Request Bulletin BP



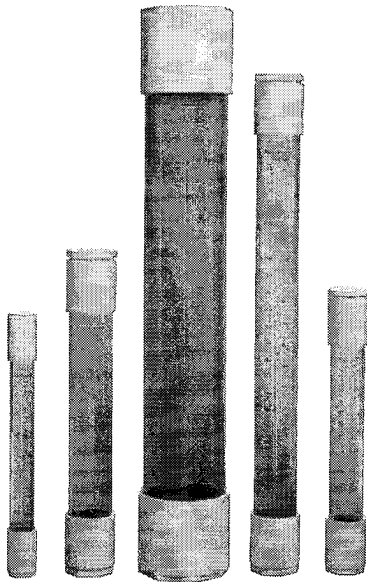
316SS ▲

PVC ►

Relief Valves

PVC, 316SS and Alloy 20 standard.

Request Bulletin RV



Calibration Columns

Standard sizes 100, 250, 500, 1,000 and 4,000 ml.

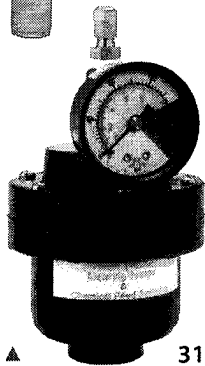
Request Bulletin CC

Pulsation Dampeners

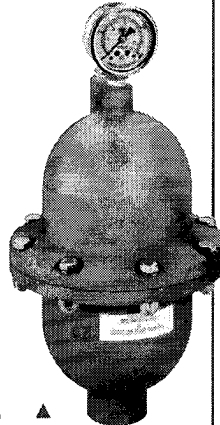
PVC, polypropylene, 316SS and Alloy 20 bodies with Viton®, EPDM or Teflon bladders.

Request Bulletin PD

PVC ▲



316SS ▲

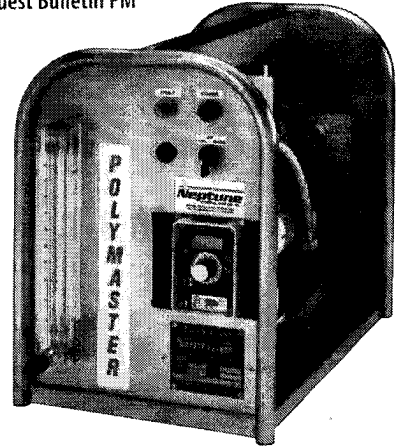


Water Treatment Products

Polymer Blend & Feed

Neptune's Polymaster™ dilutes, mixes and thoroughly activates emulsion, dispersion and solution polymers including new high molecular weight products.

Request Bulletin PM

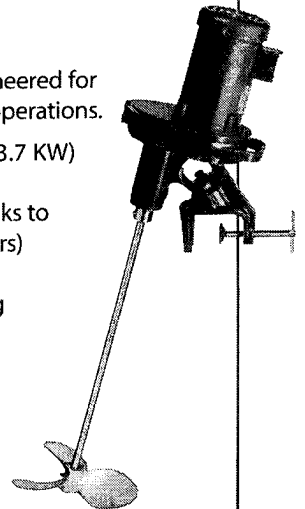


Portable Mixers

Neptune mixers are engineered for a wide variety of mixing operations.

- 1/20 to 5 HP (0.037 to 3.7 KW)
- Gear or Direct Drive
- Drums-IBC/Totes or Tanks to 5000 gallons (18925 liters)

Request Portable Mixer Catalog



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