

Maintenance Monthly Activity Report for July 2023

Overall

We are continuing to work with Kirby Risk and alternate vendors to obtain competitive quotes for the motor control center replacement projects.

Ford is slowly opening the ordering windows for Illinois State Bid Vehicles. The established contracts allowed for price increases model year to model year and the increases appear to be substantial. As the contract amounts are issued, the vehicle replacement plan will be reworked to fit in with our current budget.

Hach is working with the District to increase the reliability of our online chlorine analyzers. We had a conference call and discussed the operational issues being experienced. Our daily maintenance procedures have been modified as Hach recommended. The readings continue to drift down after a few hours due to algae / solids clogging the sample tubing. Finer screen strainers have been ordered to try and combat the algae issues we are experiencing.

The fully reconditioned Neuros Blower repair has been received. We will begin to put together a project to install the blower and get it piped in. The goal is to have the blower installed and in operation by the end of this fiscal year.

Maintenance and operations staff have been coordinating to get digester #2 pumped down for evaluation. We were experiencing high methane levels in the attic space of digester #2 that created a safety concern. The digester has been pumped down past the side hatch and we are set up to pump out the remainder of the digester contents. The final bottom contents will be pumped in to digester #3 in the next few weeks. We continue to monitor combustible gas buildup in digester #1 and #4 attic spaces also. We are not seeing any methane or H₂S in digester #1 or #4. The levels are tested on a regular basis by maintenance staff with no changes in the past month.

Congratulations to Donnie Reynolds for completing Phase 1B of the maintenance training program!

Systems Integrator and I&C Monthly Activity

- Creating monthly spreadsheets for Black & Veatch Power BI with SCADA and Lab data
- Finalize Front Gate project drawings and controls.
- Working with Farnsworth on the FRAC Tank project programming and High-Performance SCADA graphics
- Working with I&C on the installation and configuration of Digital Paperless Chart recorders at the Major pump stations around town

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- Updating Fiber Optic drawings for the plant and training several I&C techs on the District's fiber optic layout
- Extended the Admin network throughout the plant for cameras and upgraded Wi-Fi access.
- Created documentation for the new Admin plantwide network showing VPN's and port availability for I&C tech use.
- Adding PLC watchdog tags to Win 911 and SCADA for Operator notifications.
- Working with Gray Matter Systems on upgrading SCADA and Historian along with adding Proficy WebSpace for secure remote access
- Digester #3 startup
- Developed new controls for the Pneumatic Sludge pumps at the 210 building since the control boards are now obsolete.
- Supervising the I&C shop
 - Finishing rewiring the 210 basement heaters
 - Bringing digester #3 back online
 - Chlorine analyzers
 - Updating wireless access points
 - Cleaned up fiber at digester building
 - Installed 4 chart recorders in town

Mechanical Maintenance Monthly Activity

The Wyckles east force main had a valve failure that caused an SSO. Maintenance cleaned up the spill immediately. It was found that the valves that had been installed had zinc plated bolts holding down the bonnet (top of the valve where the operator is located). Over the years, the bolts had degraded sitting in groundwater and this caused the failure. Maintenance staff removed the old valve and fittings, coordinated with TeleScan to televise the line both ways to check for damage, replaced the valve and fittings, and leak tested the system. The bolts in the valve were replaced with 316 SS bolts prior to installation. We will step through the remaining valves on the Wyckles force mains and replace the bolts and / or valves as required to avoid future issues.

The mechanical maintenance group has been working on getting the ground water down on the north cluster of final clarifiers. We have not been able to get the ground water down to an acceptable level to perform maintenance. We have blown the wells out with air and used a well brush to try and improve flow to the wells. The next step is to work with well cleaning contractors to get the wells cleaned to allow staff to safely perform the required maintenance activities.

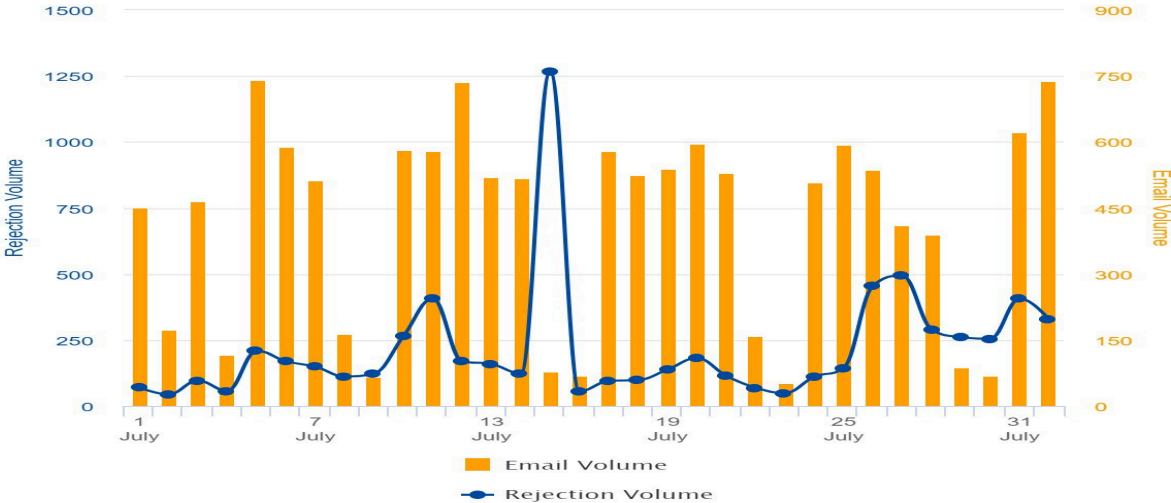
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M.I.S. Department Monthly Update

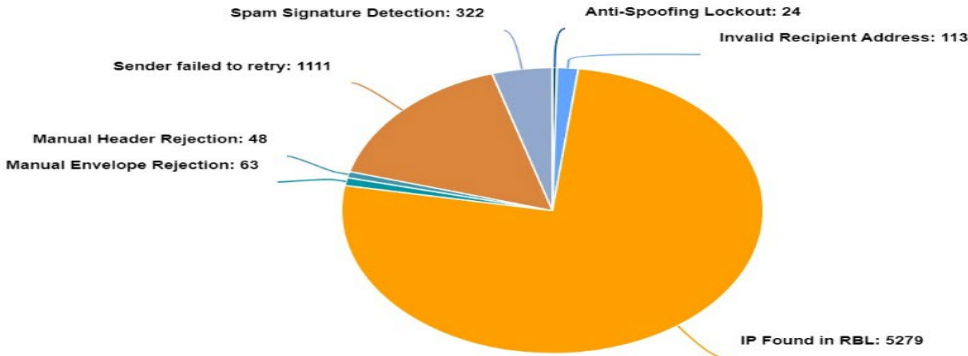
- Network Administration, Helpdesk, Troubleshooting and Repair
 - Ongoing network administration.
 - Tablet Tech Support and Setup for Beehive CMMS

Email Security

Email Volume Vs Rejected Mail
 From 1 Jul 2023 To 1 Aug 2023
 Total Email Count : 13295 Total Rejection Count : 6960



Rejection Overview
 From 1 Jul 2023 To 1 Aug 2023
 Total Rejection Count: 6960



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Email Statistics Report

From Aug - 2022 To July - 2023

Month-Year	Total Inbound email	Rejections (includes viruses & spam)	Legit Inbound Email	% Rejections	Total Outbound email	Total Internal email
Aug - 2022	6,729	2,859	3,870	42.49 %	935	5,991
Sep - 2022	7,066	2,631	4,435	37.23 %	1,374	5,800
Oct - 2022	7,063	1,861	5,202	26.35 %	1,897	6,191
Nov - 2022	7,451	2,809	4,642	37.70 %	1,301	7,029
Dec - 2022	7,208	2,970	4,238	41.20 %	1,242	6,017
Jan - 2023	7,158	2,490	4,668	34.79 %	1,142	6,666
Feb - 2023	7,413	2,960	4,453	39.93 %	1,132	6,509
Mar - 2023	9,775	4,234	5,541	43.31 %	1,465	9,092
Apr - 2023	7,803	3,116	4,687	39.93 %	1,181	6,268
May - 2023	55,625	50,888	4,737	91.48 %	1,269	6,932
June - 2023	47,612	42,780	4,832	89.85 %	1,149	7,685
July - 2023	11,445	6,632	4,813	57.95 %	1,203	6,541
Total	182,348	126,230	56,118		15,290	80,721
Mean	15,195.67	10,519.17	4,676.50	48.52 %	1,274.17	6,726.75

If you have any questions or would like additional information about the maintenance department and our activities, feel free to contact me.

Thank you,

James Malone, CPMM

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