EVOQUA
WATER TECHNOLOGIES

January 15, 2018

Mr. Ryan Popko, PE
Jacksonville Electric Authority
4215 Talleyrand Ave.
Jacksonville, FL 32206-1799
Phone: (904) 665-8516
Email: popkrr@jea.com

Dear Mr. Popko,

Thank you for your interest in Evoqua Water Technologies products and services and for your confidence in our ability to help solve your corrosion and odor control needs. Evoqua would like to present the results for the Inspection of the three Bio-trickling Filter Systems, comprised of a total of four Bio-trickling Filters, located at the JEA Arlington East WRF.

Unit 2A

H2S Inlet		80
H2S Outlet		60
Make up water	Flow meter damaged. Blue White Ind. Model: RB-500MI-GPM2 1/2" MPT Low Range .5 to 5	
Nozzle psi		15
Nozzle gpm	No meter available	
Nitrate		5
pH		7
DP		1"
CFM		5400
Nozzles	Top OK Bottom center nozzle not spraying.	
Media	OK	
Media support	OK	
Blower	Belts were broken. JEA repaired.	
Piping	OK	
Instrumentation	pH meter not operating (GLI Model 33) 0 to 4" mag gauges not operating. Recommend new fittings and hoses	
Control panel	OK	
Vessel	OK	
Notes	Blower has been offline. System could be not fully acclimated.	

Unit 2B

H2S Inlet		70
H2S Outlet		70
Make up water	Flow meter damaged. Blue White Ind. Model: F-1000-RT	
Nozzle psi	Needs 0 to 30 Gauge and guard	
Nozzle gpm	Local display is missing 50P50-EL1A1AABAAW	
Nitrate		2
pH		4.1
DP		1.5
CFM		6908
Nozzles	OK	
Media	OK	
Media support	OK	
Blower	OK	
Piping	OK	
Instrumentation	pH meter not operating (GLI Model 33) 0 to 4" mag gauges not operating. Recommend new fittings and hoses	
Control panel	OK	
Vessel	OK	
Notes	Low alarm disabled Recirc. pump off for unknown time. System may not be fully acclimated.	

Unit 3A

H2S Inlet		150
H2S Outlet		0
Make up water	No meter available	
Nozzle psi	Gauge not working	
Nozzle gpm		48.8
Nitrate		1
pH		1.5
DP		0.5
CFM		3141
Nozzles	Top not spraying Bottom is OK	
Media	OK	
Media support	OK	
Blower	OK	
Piping	OK	
Instrumentation	0 to 4" mag gauges not operating.	
	Recommend new fittings and hoses	
Control panel	Modified.	
	Most lights and switches removed.	
Vessel	OK	
Notes	3-way valve not operating	
	to allow flow to top nozzle	
	Nutrient pump is leaking.	
	Recirc. pump leaking from flange at flow meter.	

Unit 3B

H2S Inlet		150
H2S Outlet		0
Make up water	No meter available	
Nozzle psi	No gauge available	
Nozzle gpm		24.8
Nitrate		1
pH		1.8
CFM		5600
Nozzles	Bottom not spraying Top is OK	
Media	OK	
Media support	OK	
Blower	OK	
Piping	OK	
Instrumentation	0 to 4" mag gauges not operating. Recommend new fittings and hoses	
Control panel	Modified. Most lights and switches removed.	
Vessel	OK	
Note	3-way valve not operating to allow flow to bottom nozzle	

Unit 2A pH Meter

Unit 2B Non-working Flowmeter

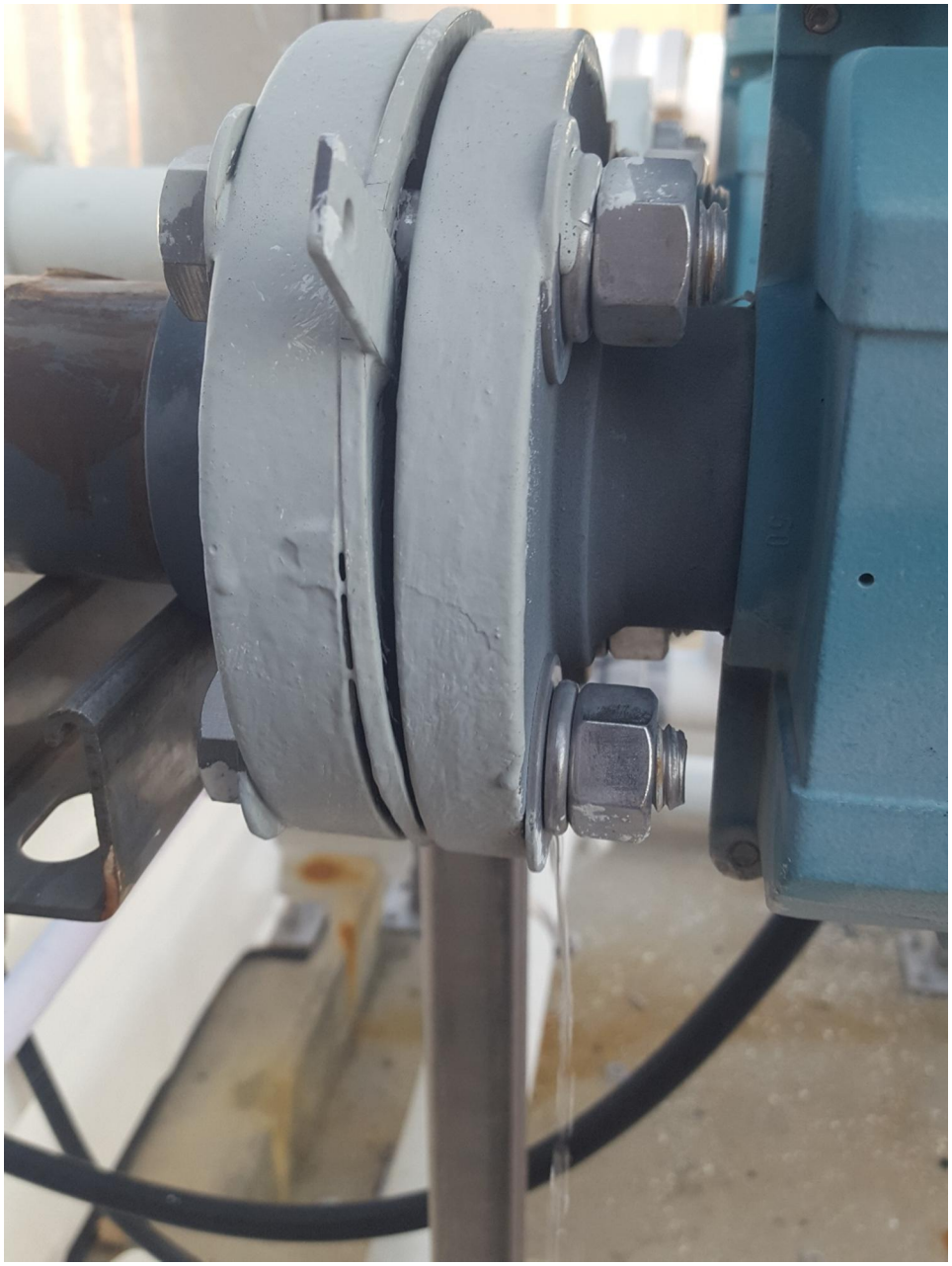
2650 Tallevast Rd.
Sarasota, FL 34243 USA

Tel: +1 (800) 345 3982
Fax: +1 (941) 359 7985

www.evoqua.com

Unit 2B – display for flowmeter missing

Unit 3A- Nutrient pump leaking



Unit 3A- leak at flowmeter flange

Modified control Panel 3A- 3B

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Sarasota, FL 34243 USA

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Fax: +1 (941) 359 7985

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Summation:

The fiberglass vessels located at the JEA Arlington Plant are in overall good structural condition and with some minor repairs can be made to perform optimally to remove Hydrogen Sulfide at the Plant. Units 2A and 2B were not operating optimally due to broken blower belts and a recirculation pump alarm that prevented the pump from operating. Both units were not removing all sulfides entering the units. Units 2A and 2B were brought back on-line, but had not fully acclimated before the technicians left the site. Units 3A and 3B were operational and removing all Sulfides entering them, but could be optimized to improve the efficiency and potentially cut down on future maintenance costs.
Most of the deficiencies noted in the above tables were due to non-functioning flow meters, differential pressure gauges and pH meters. These units could have the Digital meters and displays replaced or have them replaced with mechanical gauges to simplify the process and be more cost effective in order to better monitor the units and keep them operating at maximum efficiency.

Thank you for considering Evoqua Water Technologies for your odor control needs. If you have any questions regarding this report or if I can be of assistance in any way, please do not hesitate to call me at (352) 804-5706**.**

Sincerely,

Evoqua Water Technologies LLC

Dave McCalla

Dave McCalla
Technical Sales Representative