COMMISSIONERS:
ART GRAHAM, CHAIRMAN
JULIE I. BROWN
DONALD J. POLMANN
GARY F. CLARK
ANDREW GILES FAY

STATE OF FLORIDA

DIVISION OF ENGINEERING
TOM BALLINGER
DIRECTOR
(850) 413-6910

Public Service Commission

April 24, 2019

Mr. Martin S. Friedman
Aquarina Utilities, Inc.
420 S. Orange Ave., Suite 700
Orlando, FL 32801
mfriedman@deanmead.com

STAFF'S FIRST DATA REQUEST
VIA EMAIL & US MAIL

Re: Docket No. 20190080-WS - Application for limited proceeding rate increase in Brevard County, by Aquarina Utilities, Inc.

Dear Mr. Friedman:

Please provide responses to the following questions by May 24, 2019.

1. **Discontinue Date.** Aquarina Utilities, Inc.'s (Aquarina) petition indicates the golf course will cease to be a non-potable water customer in the near future. What is the anticipated date the Utility expects the golf course to discontinue service?

2. **Non-potable Customers.** Please provide a list of Aquarina's non-potable customers, including the percent of revenue they account for.

3. **Distribution.** The petition states it expects that the golf course will provide its own non-potable water source for irrigation of its property. Will a portion of the Utility's non-potable distribution system be sold or leased to the golf course?
   a. If yes, please provide the length and diameter of distribution to be sold or leased by the golf course?
   b. If no, will the golf course interconnect to the Utility's non-potable distribution at any point in the system?

4. **Outages.** Please list all service outages for 2017 and 2018. If any outages were due to scheduled maintenance or repairs, were customers provided adequate prior notice?

5. **Gray Water.** In response to four customer complaints concerning gray water, dated between March 10 and 14, 2019, Aquarina stated, "The grayish water that was experienced by residents last week occurred when a slight increase in chlorine residual in the system (still well within safe standards as dictated by the FDEP) caused a cloudy, grayish appearance in the water." Please provide a copy of the laboratory analysis report for March 2019 (e.g., Pace Analytical).

6. **Sanitary Survey.** On July 26, 2017, the Florida Department of Environmental Protection (DEP) conducted a Sanitary Survey of Aquarina's facilities. Aquarina was found to be in potential non-compliance, and was sent a Compliance Assistance Offer letter, dated August 28, 2017. Please specify how Aquarina addressed the deficiencies in the Sanitary Survey Report. In addition, please provide a copy of Aquarina's response to the letter, as well as DEP's reply.

7. **Pump Repairs.** On March 24, 2017, Aquarina purchased a new pump for the reverse osmosis skid. It appears the same pump was repaired on July 31, 2017, and again on June 20, 2018. Please clarify why the repairs were not covered under warranty.

8. **Roof Bids.** Please provide three bids for the replacement of the reverse osmosis building roof. If the bids were not obtained, please explain why. In addition, please provide the in service date of the current roof.

9. **Lift Station Bids.** Please provide copies of the bids that were not accepted for the repair of the lift station that is referenced in the petition.

10. **Management Audit.** In August 2017, staff conducted a Management Audit of Aquarina. Please specify how Aquarina has addressed the 11 recommended actions enumerated in section 1.4 of the audit report, located at http://www.floridapsc.com/Files/PDF/Publications/Reports/General/Waterandwastewater/AquarinaUtilities.pdf.

Please file all responses electronically via the Commission's website at www.floridapsc.com by selecting the Clerk's Office tab and Electronic Filing Web Form. If you have any questions, please contact me by phone at (850) 413-6127 or by email at jdoehlin@psc.state.fl.us.

Sincerely,

Jefferson Doehling
Engineering Specialist

JD/jp

cc: Office of Commission Clerk (Docket No. 20190080-WS)

Aquarina Utilities, Inc.
P.O. Box 1114
Fellsmere, Florida 32948
(772) 708-7946 (24 hr Emergency)
(772) 708-8350 (office 9am-1pm)
Email: aquarinautilities@bellsouth.net
www.aqaurinautilities.com

1 May 2019

Jefferson Doehling
Engineering Specialist
Florida Public Service Commission
Capital Circle Office Center
2540 Shumard Oak Blvd.
Tallahassee, FL 32399-0850

Reference: **Docket No. 20190080-WS Application for limited proceeding rate case Aquarina Utilities, Inc. Response to Staff's First Data Request**

Dear Sir:

Aquarina Utilities offers the following response to the inquiries of the Staff's First Data Request for Docket No. 20190080-WS:

1. **Discontinue Date.** Aquarina Utilities, Inc.'s (Aquarina) petition indicates that the golf course will cease to be a non-potable water customer in the near future. What is the anticipated date the Utility expects the golf course to discontinue service?

   As indicated verbally in a meeting with Aquarina Community Services Association President Patrick Pollock, the current golf course manager and two members of the board for Aquarina Golf, Inc., the golf course plans to complete construction of their wells and pumping facility and to disconnect in June of 2019.

2. **Non-potable Customers.** Please provide a list of Aquarina's non-potable customers, including the percent of revenue they account for.

   See attached.

3. **Distribution.** The petition states it expects that the golf course will provide its own non-potable water source for irrigation of its property. Will a portion of the Utility's non-potable distribution system be sold or leased to the golf course?

a. If yes, please provide the length and diameter of distribution to be sold or leased by the golf course?
b. If no, will the golf course interconnect to the Utility's non-potable distribution at any point in the system?

The golf course plans to simply commandeer the golf course distribution system as they believe they have legal right to it, despite the Utility's previously established legal claim to the system, including lines 6 inches in diameter and larger. The golf course believes that the ownership of the lines under the golf course was conferred to them when they purchased the golf course; however, the original PUD for the community and the easements and rights'-of-way granted to the utility therein clearly state that all lines and appurtenances attached to the utility belong to the utility with the exception of minor irrigation lines less than 6 inches in diameter. It is the position of the utility and our legal counsel that the "grantor" in the sales agreement for the golf course had no legal claim to the major service lines under the golf course and could not, therefore, transfer their ownership with the warranty deed in the sale of the golf course. (Please see attached PUD excerpt)

As there is no detailed accounting of the length and size of service lines in the utility, the utility estimates that five thousand feet or more of service line (greater than or equal to four inches in diameter) exist under the golf course. These lines will either need to be leased or purchased; however, no current arrangement has been made to that end, due to the golf course's position on the ownership of those lines.

The golf course turf will remain connected to the utility by two interconnects. The utility has arranged to have a small allotment of water set aside in its consumptive use permit (CUP) to allow for emergency supply to the golf course. As the golf course has applied for and obtained its own CUP for use with their proposed system, the St. John's River Water Management District removed most of the water allotment for the golf course from the utility's CUP. Storage and pumping equipment must still be maintained to be able to service this emergency use.

4. **Outages.** Please list all service outages for 2017 and 2018. If any outages were due to scheduled maintenance or repairs, were customers provided adequate notice?

There have been two noted outages for service to the golf course turf. The first occurred from 29 December 2016 to 9 January 2017 (see attached explanation) due to pump and electrical failure that occurred as a result of the golf course illegally wiring a fertigation system into the pumping system without permission from the utility. There were no noted outages in 2018. A second outage occurred from 10 to 12 March 2019, as a result of the failure of the fuse assemblies that service the golf course irrigation pump. (Please see the attached) These were not planned outages.

5. **Gray Water.** In response to four customer complaints concerning gray water, dated between March 10 and 14, 2019, Aquarina stated, "The grayish water that was experienced by residents last week occurred when a slight increase in chlorine residual in the system (still well within safe standards as directed by

the FDEP) caused a cloudy, grayish appearance in the water." Please provide a copy of the laboratory analysis report for March 2019 (e.g. Pace Analytical).

Please see attached.

6. **Sanitary Survey.** On July 26, 2017, the Florida Department of Environmental Protection (FDEP) conducted a Sanitary Survey of Aquarina's facilities. Aquarina was found to be in potential non-compliance, and was sent a Compliance Assistance Offer letter, dated August 28th, 2017. Please specify how Aquairna addressed the deficiencies in the Sanitary Survey Report. In addition, please provide a copy of Aquarina's response to the letter, as well as DEP's reply.

   Please find all correspondence with the DEP regarding the Sanitary Survey attached, including the Field Measurement of Chlorine Manual provided by the DEP and the Cross Connection Control Manual required by the DEP.

   Regarding section 4 (Sampling) of the Sanitary Survey, the DEP requested annual verification of the secondary gel standards and chlorine meter with primary standards. The utility replaces the gel standards every year and calibrates the chlorine meter every year or earlier as needed. New buffer solutions were purchased.

   Regarding section 5 (Records and Reports) of the Sanitary Survey, the Discharge Monitoring Report format needed to be adjusted and has been changed accordingly. This format changes periodically and adjustments to it are often necessary.

   Regarding section 7 (Flow Measurement), ETM calibrations were overdue and were performed by Florida Rural Water Association following the inspection.

   Regarding section 9 (Effluent Quality), a monthly maximum result for Total Suspended Solids exceeded the limit slightly and was not reported in a timely manner. These exceedances are now reported in a timely manner.

   No other compliance issues were indicated in the sanitary survey.

7. **Pump Repairs.** On March 24, 2017, Aquarina purchased a new pump for the reverse osmosis skid. It appears the same pump was repaired on 31 July, 2017, and again on June 20, 2018. Please clarify why the repairs were not covered under warranty.

   The reverse osmosis system at Aquarina has many pumps. There are two RO trains. Each RO train has a 60hp motor and pump attached to it to pump water through the RO membranes. The well feed for the potable water system is by artesian pressure, there is no pump on the well that services the potable system. Subsequently, two booster pumps are required in the RO process to push the well water through two sets of pre-filters. After processing, two additional pumps push the treated water into the ground storage tank. After the ground storage tank, there are two high service pumps that push the water into the distribution system. Sometimes the vendor is not

conscientious about the detail of pump identification in their invoices, and indicates any pump in the RO building as an RO pump. In this case, the 3/24/2017 invoice indicates the purchase of a new 60hp pump for the old RO train. The old pump was removed and repaired as a spare; however, the vendor was undergoing some personnel changes following the death of one of its principals, and lost track of the invoicing for the repair of the old pump until it was invoiced 6/20/2018. The 7/26/2017 invoice was for a repair on one of the 7.5hp Baldor booster pumps. The 7/31/2017 invoice was for a repair on one of the high service pumps.

8. **Roof Bids.** Please provide three bids for the replacement of the reverse osmosis building roof. If bids were not obtained, please explain why. In addition, please provide the in service date of the current roof.

   Three bids for the RO roof could not be obtained because no other roofer (we called 5 different firms) would come out to the island or deal with such a small job at such a distance. The roofer that provided the current bid happened to be working on other buildings in Aquarina and came as a courtesy because he was in the area already. He was kind enough to climb up on the roof and assess the issues there during his lunch break. The roof has already been installed (8 May 2019), so no other bids are necessary. The skylights will be replaced as part of the current job, but at a later date when they come in on special order. We have no documentation for the old roof, but one of our employees stated that the old roof was installed in 2004, after the back section rotted and caved in. Flat asphalt roofs do not last long on the island.

9. **Lift Station Bids.** Please provide copies of the bids that were not accepted for the repair of the lift station that is referenced in the petition.

   No other bids were obtained for this lift station. The utility used a vendor with which it already had a working relationship because special wiring and work would be needed and the utility could trust their expertise to install the unit correctly. The utility also replaced the on-site lift station next to the sewer plant through another vendor with a fiberglass container and pre-fabricated wiring because the electrical situation for that lift station was somewhat different and did not require special attention. The utility did not submit the invoices for the second lift station due to the limitations of the "limited" proceedings.

10. Management Audit. In August 2017, staff conducted a Management Audit of Aquarina. Please specify how Aquarina addresses the 11 recommended actions enumerated in section 1.4 of the audit report, located at http://www.floridapsc.com/Files/PDF/Publications/Reports/General/Waterandwastewater/AquarinaUtilities.pdf.

    The utility has already addressed the recommendations for Observations 1,2,4,9,10, and 11 within the text of the Management Audit publication itself. Please refer to the audit document for these responses.

    Observation 3: Aquarina does not have written policies and procedures regarding maintenance, repair or complaint handling activities.

    Recommended Action: Commission audit staff recommends the company develop written policies and procedures for complaint handling, maintenance work, and repairs.

Utility Response: The utility has developed written policies and procedures for complaint handling, maintenance work, and repairs. These policies are constantly under review and are being improved as issues suggest changes are necessary.

Observation 5: Commission audit staff believes that Aquarina's service reliability and continuity are acceptable. Since 2011, Aquarina has had very few major service interruptions.

Observation 6: Commission audit staff believes that Aquarina management's response to maintenance and repairs events is acceptable. Company management has acquired additional tools and equipment to expedite maintenance and repair activities.

Observation 7: Commission audit staff believes Aqaurina's basic emergency plan does not fully address all issues related to utility operation during emergency conditions.

Recommended Action: Commission audit staff recommends that the company establish a more detailed emergency plan prior to major weather events such as tropical storms and hurricanes. This would allow company management, or another licensed operator to be present at Aquarina to take care of any emergencies at the site. The company states that it intends to amend its emergency preparedness plan.

Utility Response: The utility has developed a more comprehensive emergency preparedness plan and continues to update the plan as issues suggest changes are necessary. We utilize the public alert system, email, and our website to be sure that our community is apprised of all emergency situations or issues.

Observation 8: Commission audit staff notes that some customers believe the Aquarina plant capacity and condition are inadequate.

Recommended Action: Commission audit staff found no specific areas of concern. However, Commission audit staff recommended that a Florida Rural Water Association (FRWA) assessment of the utility's plant be completed.

Utility Response: The FRWA association was asked to complete an assessment of the plant and propose a plan for upgrading the plant if necessary. Mr. Sterling, FRWA engineer, came to the plant in August of 2017 and promised to provide a report on his assessment. To date, we have received no report. However, he did suggest that a contribution of $2,500.00 be provided before a remediation plan could be undertaken. The utility felt that, without the provision of an assessment or deficiencies report, it would be unwise to provide a $2,500.00 contribution; however, Mr. Sterling did not indicate any issues or deficiencies during his inspection. Additionally, the Utility has received no customer complaints (with the exception of the golf course for the two outages already addressed) since the conclusion of the rate case, and it is our opinion that the cluster of complaints surrounding the rate case were an effort to thwart the rate case, not on-going concerns. The water shortages and issues that were experienced in the non-potable system in 2016 as a result of over-watering by the communities during irrigation (vastly exceeding their watering allotments) have been eliminated now that the communities are watering within their established Saint John's River Water Management District-determined water allotments (restraint perhaps inspired by the rate increase for non-potable service).

Observation 12: Aquarina does not maintain and document fire hydrant maintenance activities.

Recommended Action: Commission audit staff also recommends that the company maintain up-to-date records of all fire hydrant maintenance and provide the documents to Brevard County Fire Rescue. The company states that it intends to keep better records of hydrant flushing and oiling.

Utility Response: The utility maintains a notebook specifically for hydrant testing and maintenance. The records in this book are updated as maintenance is conducted. This book is available for Brevard County Fire Rescue to inspect during inspections.

Sincerely,

Holly Burge

Holly Burge
Account Manager; Aquarina Utilities, Inc.
(772) 708-8350
aquarinautilities@bellsouth.net

Aquarina Utilities, Inc. Irrigation

May 2019

Customer Group	Meter Sizes	Usage (Gallons)	% of Total Irrigation	Revenue Total	Revenue %
Individual Residential	5/8" x 3/4"	1,845,310	12.54	$3,721.16	13.48
Aquarina Community Services Association	various	999,878	6.80	$2,913.67	10.54
Aquarina Golf	various	56,300	0.38	$413.78	1.50
Aquarina Golf Turf	6"	7,627,560	51.85	$11,301.31	40.90
Blue Heron	2"	103,180	0.70	$478.94	1.73
Crane's Point	2"	711,700	4.84	$1,212.95	4.39
Egret Trace	2"	149,800	1.02	$543.75	1.97
The Hammocks	2"	111,800	0.76	$267.24	0.97
Hawk's Nest	2"	69,400	0.47	$208.31	0.75
Les Villas	2"	643,500	4.37	$1,118.15	4.05
The Marlins	2"	117,300	0.80	$274.89	0.99
Matanilla Reef	2"	240,100	1.63	$445.58	1.61
Ocean Breeze	2"	325,000	2.21	$563.59	2.04
Osprey Villas	2"	241,300	1.64	$447.25	1.62
Sea Hawk	2"	581,900	3.96	$920.68	3.33
Spoonbill	2"	232,700	1.58	$435.29	1.58
Tidewater	2"	136,500	0.93	$301.58	1.09
Ocean Dunes	3"	163,600	1.11	$451.08	1.63
St. Andrews Village	8"	355,000	2.41	$1,611.85	5.83
		14,711,828	**100.00**	**$27,631.05**	**100.00**

SERVICES SOLD

AQUARINA UTILITIES INC.

DATE: 05/11/2019 AUTHOR: AQUAH77
CRITERIA: 04/09/2019 - 05/09/2019

Acct#	Name	Service Location	Count	Usage	Fee	Tax	Total
	IRRIGATION: 5/8 X 3/4 NP						
1601	ALFORD, JEFF	7708 NP KIAWAH WAY		13120	$32.22	$0.00	$32.22
1504	ALLEN, WILLIAM	7647 NP KIAWAH WAY		8640	$25.99	$0.00	$25.99
1450	AQUARINA COMMUNITY	7495 S HWY A1A NPW		4610	$20.39	$0.00	$20.39
718	AQUARINA COMMUNITY	235 AQUARINA BLVD		38700	$67.77	$0.00	$67.77
801	AQUARINA COMMUNITY	0 LAKESIDE POOL		273300	$393.87	$0.00	$393.87
1594	BANK, SUNTRUST	385 NP HAMMOCK SHORE		0	$13.98	$0.00	$13.98
1585	BARTLETT, JACQUELYN	7607 NP KIAWAH WAY		28960	$54.23	$0.00	$54.23
1198	BLOYD, SCOTT	270 NP HAMMOCK SHORE		1000	$15.37	$0.00	$15.37
1231	BRUNO, ADRIAN A.	850 AQUARINA BLVD NPW		13890	$33.29	$0.00	$33.29
1442	BRUNS, ALAN	884 AQUARINA BLVD NPW		48960	$82.03	$0.00	$82.03
1400	CANDIO, STEPHEN	7608 NP KIAWAH WAY		0	$13.98	$0.00	$13.98
327	CAPPS, STEWART B.	320 NP HAMMOCK SHORE		20110	$41.93	$0.00	$41.93
1220	CEREFICE, PAULA	7725 S HWY A1A NPW		27590	$42.54	$0.00	$42.54
1493	CLARK, ROBERT	7701 NP S HIGHWAY A1A		27550	$52.27	$0.00	$52.27
630	COBB, JOHN	820 AQUARINA BLVD NPW		8270	$25.48	$0.00	$25.48
841	COLOMBO, SAM	255 NP HAMMOCK SHORE		25380	$49.26	$0.00	$49.26
1118	COLUCCIELLO, JOSE	7707 NP KIAWAH WAY		480	$14.65	$0.00	$14.65
1297	D'ABBENE, MICHAEL	7667 NP KIAWAH WAY		11580	$30.08	$0.00	$30.08
1580	DAVIS, GRAEME	375 NP HAMMOCK SHORE		43330	$74.21	$0.00	$74.21
310	DAVIS, ROSS	330 NP HAMMOCK SHORE		24480	$48.01	$0.00	$48.01
1348	DEVANNEY, WILLIAM	7717 NP KIAWAH WAY		10280	$28.27	$0.00	$28.27
1002	DICKHAUS STEPHEN	0 KIAWAH WAY		22170	$44.80	$0.00	$44.80
1614	DOUGHERTY, HUGH	315 NP HAMMOCK SHORE		15400	$35.39	$0.00	$35.39
1462	DOUGHERTY, MIKE	325 NP HAMMOCK SHORE		29440	$54.90	$0.00	$54.90
1276	EGAN, TERRI	796 AQUARINA BLVD NPW		31720	$58.07	$0.00	$58.07
1398	EICKMEIER, MICHAEL	7737 NP KIAWAH WAY		1760	$16.43	$0.00	$16.43

SERVICES SOLD

AQUARINA UTILITIES INC.

DATE: 05/11/2019 AUTHOR: AQUAH77
CRITERIA: 04/09/2019 - 05/09/2019

Acct#	Name	Service Location	Count	Usage	Fee	Tax	Total
1544	ELIESON, KRISTINE	7433 S HWY A1A NPW		5500	$21.63	$0.00	$21.63
1521	FREY, CHARLES	370 NP HAMMOCK SHORE		20280	$42.17	$0.00	$42.17
1432	GILLIS, PAUL	7638 NP KIAWAH WAY		9020	$26.52	$0.00	$26.52
1563	HANSON, PETER	260 NP HAMMOCK SHORE		33190	$60.11	$0.00	$60.11
9	HARRISON, VICKI	870 AQUARINA BLVD NPW		22630	$45.44	$0.00	$45.44
1458	HEGERMAN, ROBERT	814 AQUARINA BLVD NPW		51240	$85.20	$0.00	$85.20
1530	HYLAND, ROBIN	355 NP HAMMOCK SHORE		1860	$16.57	$0.00	$16.57
1415	INVESTMENT LLC, J	7525 S HWY A1A NPW		44140	$75.33	$0.00	$75.33
847	KANE, EUGENE	380 NP HAMMOCK SHORE		18290	$39.40	$0.00	$39.40
846	KENEFICK, TIM	420 NP HAMMOCK SHORE		23220	$46.26	$0.00	$46.26
1474	KISSEE, DAN	826 AQUARINA BLVD NPW		21880	$44.39	$0.00	$44.39
319	KRASNICK, WILLIAM	305 NP HAMMOCK SHORE		47130	$79.49	$0.00	$79.49
997	LAVINE, MARK	7429 S HWY A1A NPW		8510	$25.81	$0.00	$25.81
308	LEE, WILLIAM	345 NP HAMMOCK SHORE		70160	$111.50	$0.00	$111.50
1393	LIM, CHEANG	7618 NP KIAWAH WAY		4830	$20.69	$0.00	$20.69
1582	LLOYD, MELISSA	808 AQUARINA BLVD NPW		49790	$83.19	$0.00	$83.19
836	MAGUIRE, THOMAS	365 NP HAMMOCK SHORE		32580	$59.27	$0.00	$59.27
701	MALAKOFF, JOYCE	864 AQUARINA BLVD NPW		15040	$34.89	$0.00	$34.89
1574	MAREK, RICHELLE	7677 NP KIAWAH WAY		34660	$62.16	$0.00	$62.16
1497	MATTHEWS, ROZANNE	290 NP HAMMOCK SHORE		51940	$86.18	$0.00	$86.18
1374	MCBEE, MARK	7687 NP KIAWAH WAY		35470	$63.28	$0.00	$63.28
1181	MCCONATY, SUSAN	890 AQUARINA BLVD NPW		50890	$84.72	$0.00	$84.72
1587	MCGARRY, JAMES	7617 NP KIAWAH WAY		50960	$84.81	$0.00	$84.81
1513	MELAT, SUSAN	858 AQUARINA BLVD NPW		12580	$31.47	$0.00	$31.47
1411	MERTINS, GARY	7757 NP KIAWAH WAY		13000	$32.05	$0.00	$32.05
1485	MICHAEL DERHAM	836 AQUARINA BLVD NPW		16410	$36.79	$0.00	$36.79
1423	MILLER, ELISE	7449 S HWY A1A NPW		29670	$55.22	$0.00	$55.22

SERVICES SOLD

AQUARINA UTILITIES INC.

DATE: 05/11/2019 AUTHOR: AQUAH77
CRITERIA: 04/09/2019 - 05/09/2019

Acct#	Name	Service Location	Count	Usage	Fee	Tax	Total
1402	MILLER, JAYNE	7697 NP KIAWAH WAY		7490	$24.39	$0.00	$24.39
855	MORRIS, DAVID	265 NP HAMMOCK SHORE		16830	$37.37	$0.00	$37.37
1523	MOSER, OLIVIA	7425 S HWY A1A NPW		2380	$17.29	$0.00	$17.29
840	MUENDEL, ED	360 NP HAMMOCK SHORE		43160	$73.97	$0.00	$73.97
715	MURRAY, DONALD D.	846 AQUARINA BLVD NPW		15580	$35.64	$0.00	$35.64
1157	NEARY, KENNETH	310 NP HAMMOCK SHORE		21800	$44.28	$0.00	$44.28
1409	NESBITT, DAVID	7727 NP KIAWAH WAY		3090	$18.28	$0.00	$18.28
1605	NICHOLS JOHN	802 AQUARINA BLVD NPW		16590	$37.04	$0.00	$37.04
1627	OWNER, NEW	7725 S HWY A1A NPW		47580	$75.93	$0.00	$75.93
352	PARISH, GARY	405 NP HAMMOCK SHORE		45380	$77.06	$0.00	$77.06
1434	PORCH, MARCIA	7627 NP KIAWAH WAY		14850	$34.62	$0.00	$34.62
824	POTE, HARRY	300 NP HAMMOCK SHORE		50590	$84.30	$0.00	$84.30
1629	PRADO, MICHAEL	874 AQUARINA BLVD NPW		330	$0.93	$0.00	$0.93
1286	QUINBY, RICHARD	395 NP HAMMOCK SHORE		18020	$39.03	$0.00	$39.03
1350	RICE, HOLLY	7445 S HIGHWAY A1A		20520	$42.50	$0.00	$42.50
1223	RISING, DAVID	894 AQUARINA BLVD NPW		25230	$49.05	$0.00	$49.05
838	RIVER OAKS HOA	0 HAMMOCK SHORE DR		9610	$27.34	$0.00	$27.34
1599	ROGIER, STEVE	7747NP KIAWAH WAY		160	$14.20	$0.00	$14.20
1359	ROSEN, COLLEEN	7777 NP KIAWAH WAY		18860	$40.20	$0.00	$40.20
1184	ROSS, KATHI	7437 S HWY A1A NPW		13600	$32.88	$0.00	$32.88
719	SANTELL, CONNIE	874 AQUARINA BLVD NPW		0	$9.32	$0.00	$9.32
1252	SCURA, JAMES	854 AQUARINA BLVD NPW		42910	$73.62	$0.00	$73.62
302	SHATTUCK, BRADLEE	350 NP HAMMOCK SHORE		16080	$36.33	$0.00	$36.33
1541	SIEGNER, ROBERT	860 AQUARINA BLVD NPW		13160	$32.27	$0.00	$32.27
1311	SMITH, CLARE	7657 NP KIAWAH WAY		21090	$43.30	$0.00	$43.30
834	SMITH, JOSEPH P.	335 NP HAMMOCK SHORE		33210	$60.14	$0.00	$60.14
1381	STILES, JANET	390 NP HAMMOCK SHORE		20120	$41.95	$0.00	$41.95

SERVICES SOLD

AQUARINA UTILITIES INC.

DATE: 05/11/2019 AUTHOR: AQUAH77
CRITERIA: 04/09/2019 - 05/09/2019

Acct#	Name	Service Location	Count	Usage	Fee	Tax	Total
1526	SUSAN WISNIEWSKI	7628 NP KIAWAH WAY		13700	$33.02	$0.00	$33.02
1516	THREADGILL, JAMES	7441 S HWY A1A NPW		5250	$21.28	$0.00	$21.28
343	TURNER, CLYDE	280 NP HAMMOCK SHORE		27440	$52.12	$0.00	$52.12
1616	WAGNER, MICHAEL	7637 NP KIAWAH WAY		23250	$46.30	$0.00	$46.30
1362	WERTHER, ROBERT	7767 NP KIAWAH WAY		5600	$21.76	$0.00	$21.76
649	WHITNEY, DANIEL M.	880 AQUARINA BLVD NPW		15990	$36.21	$0.00	$36.21
1608	WILLIAM SINNOTT, J	832 AQUARINA BLVD NPW		14460	$34.08	$0.00	$34.08
315	ZALESKI, JOHN	340 NP HAMMOCK SHORE		12420	$31.24	$0.00	$31.24
	Totals:		88	2161920	$4,203.19	$0.00	$4,203.19
	IRRIGATION: 2 NP						
869	AQUARINA COMMUNITY	0 AQUARINA BLVD NPW		80500	$223.74	$0.00	$223.74
865	AQUARINA COMMUNITY	0 AQUARINA BLVD NPW		55100	$188.43	$0.00	$188.43
868	AQUARINA COMMUNITY	0 AQUARINA BLVD NPW		85200	$230.27	$0.00	$230.27
858	AQUARINA COMMUNITY	0 COMMON GROUND		97000	$246.67	$0.00	$246.67
856	AQUARINA COMMUNITY	0 FRONT ENTRANCE		0	$111.84	$0.00	$111.84
1208	AQUARINA GOLF INC.	0 GOLF COURSE CLUB		0	$111.84	$0.00	$111.84
1206	AQUARINA GOLF INC.	7500 S HIGHWAY A1A		0	$111.84	$0.00	$111.84
1201	AQUARINA GOLF INC.	171 AQUARINA BLVD		56300	$190.10	$0.00	$190.10
803	BLUE HERON	0 S HIGHWAY A1A		30200	$153.82	$0.00	$153.82
800	BLUE HERON	0 BLUE HERON		56700	$190.65	$0.00	$190.65
802	BLUE HERON	1 AQUARINA BLVD NPW		16280	$134.47	$0.00	$134.47
860	CRANE'S POINT H.O.A	CP EAST AQUARINA BLVD		471400	$767.09	$0.00	$767.09
714	CRANE'S POINT H.O.A.	CP WEST AQUARINA BLVD		240300	$445.86	$0.00	$445.86
169	EGRET TRACE H.O.A	289 AQUARINA BLVD		36300	$162.30	$0.00	$162.30
170	EGRET TRACE H.O.A	0 AQUARINA BLVD		21300	$141.45	$0.00	$141.45

SERVICES SOLD

AQUARINA UTILITIES INC.

DATE: 05/11/2019 AUTHOR: AQUAH77
CRITERIA: 04/09/2019 - 05/09/2019

Acct#	Name	Service Location	Count	Usage	Fee	Tax	Total
171	EGRET TRACE H.O.A.	0 AQUARINA BLVD		92200	$240.00	$0.00	$240.00
808	HAMMOCK CONDO ASSOC	0 HAMMOCK		111800	$267.24	$0.00	$267.24
1006	HAWKS NEST H.O.A.	0 SPANISH MOSS CT		69400	$208.31	$0.00	$208.31
820	LES VILLAS	2 LES VILLAS		62400	$198.58	$0.00	$198.58
819	LES VILLAS	0 LES VILLAS		581100	$919.57	$0.00	$919.57
821	MARLIN CONDO ASSOC.	0 MARLIN		117300	$274.89	$0.00	$274.89
1452	MATANILLA REEF HOA	0 MANTILLA REEF WAY		240100	$445.58	$0.00	$445.58
295	OCEAN BREEZE HOA	0 WHALER DR		325000	$563.59	$0.00	$563.59
822	OSPREY VILLAS WEST	0 OSPREY VILLAS		241300	$447.25	$0.00	$447.25
550	SEA HAWK HOA	0 S HIGHWAY A1A		581900	$920.68	$0.00	$920.68
371	SPOONBILL VILLAS HOA	0 AQUARINA BLVD		232700	$435.29	$0.00	$435.29
816	TIDEWATER CONDO	7415 AQUARINA BEACH		136500	$301.58	$0.00	$301.58
	Totals:		27	4038280	$8,632.93	$0.00	$8,632.93
	IRRIGATION: 4 NP						
867	AQUARINA COMMUNITY	0 AQUARINA BLVD NPW		106400	$497.40	$0.00	$497.40
866	AQUARINA COMMUNITY	0 AQUARINA BLVD NPW		65343	$440.33	$0.00	$440.33
	Totals:		2	171743	$937.73	$0.00	$937.73
	IRRIGATION: 3 NP						
711	AQUARINA COMMUNITY	0 RACQUET CLUB NPW		193725	$492.96	$0.00	$492.96
730	OCEAN DUNES CONDO	140 WARSTEINER WAY		163600	$451.08	$0.00	$451.08
	Totals:		2	357325	$944.04	$0.00	$944.04

SERVICES SOLD

DATE: 05/11/2019 AUTHOR: AQUAH77
CRITERIA: 04/09/2019 - 05/09/2019

AQUARINA UTILITIES INC.

Acct#	Name	Service Location	Count	Usage	Fee	Tax	Total
	IRRIGATION: 6 NP						
1202	AQUARINA GOLF INC.	0 GOLF COURSE TURF		7627560	$11,301.31	$0.00	$11,301.31
	Totals:		1	7627560	$11,301.31	$0.00	$11,301.31
	IRRIGATION: 8 NP						
814	ST ANDREWS VILLAGE	0 CALEDONIA DR		355000	$1,611.85	$0.00	$1,611.85
	Totals:		1	355000	$1,611.85	$0.00	$1,611.85
	Grand Totals		121	14711828	$27,631.05	$0.00	$27,631.05
	Grand Total Sewer Usage		0	0			

Aquarina Utilities, Inc.

P.O. Box 1114
Fellsmere, FL 32948
(772) 708-8350 (office)
(772) 708-7946 (emergency)
aquarinautilities@bellsouth.net

20 January 2017

Aquarina Golf, Inc.
C/O Mr. Jim Moller
450 Aquarina Blvd.
Melbourne Beach, FL 32951

Reference: Aquarina Golf, Inc. Complaint, Acct. 1202 "Golf Course Turf", E-tracking #122212

Dear Sir:

Please review the following response to your complaint to the Florida Public Service Commission, dated 18 January 2017:

Before the discussion of the recent golf course irrigation issues, please consider the customer payment history of this account for the period 01/01/2016 to present. Of the 13 payments due during this period, 9 have been late and one, although 10 days late, has not yet been received. Related to this final, unreceived, payment, please find a disconnect notice attached to this correspondence. With this record of account delinquency in mind, let us examine the issues presented.

With regard to the outage mentioned in your complaint, the time period mentioned should be examined. The power surge or short that destroyed the fuses and safety components inside the panel that operates the VFD drive that is part of the golf course irrigation pump system, occurred on Thursday, 29 December 2016, sometime in the afternoon. The golf course was able to water as usual on Thursday morning. The VFD drive is a necessary component of the irrigation system as it slowly increases the water pressure in the golf course irrigation system to prevent excessive shock to pipes and sprinkler heads which would result in damage to both of these fixtures.

As soon as we became aware of the outage, Thursday afternoon, we contacted Watertronics of Melbourne to see if they had a VFD drive in stock and an electrician available to troubleshoot and repair the panel and install the VFD drive. We also verified that, should the damage extend to the 75 horsepower golf course pump, Watertronics did, in fact have a loaner pump of that size

available. At that time, Watertronics indicated that they did have a VFD drive in stock, but when they went to look for it, they realized that they did not and had to order one. Ron, one of the Watertronics electricians, came out Friday, 30 January, 2016 to troubleshoot the damage. He verified that the all three fuses and the fuse panel were damaged beyond repair. Without these fuses, they could not assess the condition of the VFD drive and the 75hp pump that serve the golf course irrigation system. Although Watertronics had the fuses in stock, they had to special order the fuse panel. This panel was ordered Friday, 30 December 2016, but did not come in until Tuesday, 3 January 2016 due to the New Year holiday.

On Monday, January 2, 2017, we received a call from the golf course stating that they had been in contact with the secretary at Watertronics and that she was waiting on us to confirm the order of the VFD drive. Although Watertronics was closed for the observance of New Year's, the secretary had forwarded her phones to her personal phone and was catching up on paperwork at home. Ron returned to Aquarina to replace the fuses and panel on Tuesday, 3 January 2017. With this portion repaired, we determined for certain that the VFD drive was damaged and needed to be replaced. We asked Watertronics to immediately order the VFD drive.

By Tuesday, 3 January 2017, day 5 of the outage, the disconnect notice for non-payment of account 1202, dated 27 December 2016, became effective. The account, then 24 days past due, was then officially disconnected. Despite the assurances of Mr. Moller that we would receive payment more than two weeks prior, no payment had been received. We did receive a check in the mail later in the day, which we posted to the account to reconnect service.

The VFD drive arrived at Watertronics Friday, 6 January 2017 and was installed in the morning of Monday, 9 January 2017. As Watertronics does not do emergency call-outs on the weekends, this was the earliest installation date available after the arrival of the VFD drive. With the installation of this drive, we were able to determine that the 75 Hp pump was, thankfully, not damaged, and restored water to the golf course.

Some representative of the home owners at Aquarina called the Fire Marshal's office to report that the fire protection system was not operational as a result of the golf course irrigation failure. Jeff Krupinsky of the Fire Marshal's office came to observe the installation of the VFD drive on 9 January 2017. At no time during the irrigation outage for the golf course was the fire protection system out of service.

It is important to note that the Watertronics electricians observed that the fertigation system installed by the golf course was improperly wired in and could very possibly be the source of all of the electrical issues we have been experiencing with the golf course irrigation system since the fertigation system's installation. It is also important to note that, while the golf course leadership and the utility did discuss the possibility of allowing such a system to be installed, its installation was not authorized or supervised by the utility. The fertigation system was installed without utility personnel present. The utility has been provided with no documentation to support that the system was installed by a licensed industrial electrician and no compensation has been provided for the power used by the system. An investigation is on-going to determine if the wiring damage caused by the installation of the fertigation system is responsible for the damage to the VFD drive and panel.

Finally, the utility is not responsible for power outages, surges, and other random events that damage equipment. The utility immediately acted to repair the issue in the most timely manner possible. We are not responsible for ordering errors made by vendors; we have to cope with the limitations of technician availability and shipping times in the same way all businesses must. The utility has always made every effort to be sympathetic to the watering and budgetary needs of the golf course, including fighting to prevent the recent increase in irrigation rates, specifically for the golf course. In the past, this utility has sacrificed some $300,000 dollars in golf course irrigation revenue, donated water at no cost to the golf course when metering systems were down, allowed the golf course personnel access to plant equipment to be able to regulate their irrigation, and much more.

If the golf course maintains that the utility should have redundancy in its irrigation system or have, for example, a back-up VFD drive on hand, this is not possible. The golf course irrigation system involves very large pipes, valves, and pumps, and the cost of the existing system and their maintenance is not supported by the current annual revenue from the golf course, let alone a second set. Likewise, an irrigation well, specifically to support the heavy water demands of the golf course, is financially unjustifiable. Equipment such as pumps and VFD drives cost thousands of dollars (tens of thousands) and do not store well. Their components seize and become useless when stored for long periods. The utility does not generate sufficient revenue to risk tens of thousands of dollars on the chance that a component might need to be replaced within the effective lifetime of a replacement.

Concerning the electrical outage identified and reported 18 January 2017: we are striving to get a technician on site as soon as possible. Your continued patience is appreciated.

Thank you,

Holly B Burge

Holly Burge
Secretary & Treasurer; Aquarina Utilities, Inc.

Aquarina Utilities, Inc.
P.O. Box 1114
Fellsmere, FL 32948
(772) 708-8350 (office)
(772) 708-7946 (emergency)
aquarinautilities@bellsouth.net
www.aquarinautilities.com

14 March 2019

Aquarina Golf, Inc.
c/o Ann Bruns
7500 S. Hwy A1A
Melbourne Beach, FL 32951

Reference: FPSC Complaint #1303807W Aquarina Golf, Inc.

Dear Sir or Madam:

Aquarina Utilities, Inc. received the following complaint from the Florida Public Service Commission this morning at 8:00AM:

CUSTOMER INFORMATION
Name: AQUARINA GOLF INC Bruns
Telephone:
Email: A********M@gmail.com
Address: Ann BRUNS MELBOURNE BEACH FL 32951

BUSINESS INFORMATION
Business Account Name: Aquarina Golf Inc
Account Number:
Address: Ann BRUNS MELBOURNE BEACH FL 32951

Water County Selected: Brevard

COMPLAINT INFORMATION
Complaint: Service Outage against Aquarina Utilities, Inc.
Details:
Tomorrow will be one week without service. All homes in the community have lawn irrigation; just the golf course is without service. Aquarina Utilities finally answered emergency line, we spoke to utility manager, Kevin Burge. Aquarina Golf told Watertronics tech was scheduled to fix the issue Monday Mar 10. then Tuesday, March 11, etc. However, when we checked with Watertronics directly, we were told no work was scheduled. Aquarina Golf offered to arrange the repair. We were told no and threatened. Since then, emergency telephone line is not being answered. New sod laid recently dying, new grass growth on tee boxes and fairway dying, greens dry and turning brown in 85 degree weather trend we are experiencing. Please help! Business is suffering.

PSC was contacted previously "

Please review the following response to this complaint:

The pump which services the Aquarina Golf Course failed after 12:00AM on Saturday, 9 March 2019, following regular watering of the golf course. The failure was identified on Sunday morning and Utility Director Kevin Burge was notified about 10:00AM by on-site employee, James Sullivan. A message was left with Watertronics, the vendor who regularly services the golf course pumping system, immediately following this call, requesting a technician for first thing Monday morning. As the failure occurred on Sunday and no emergency service was available with Watertronics, the decision was made to await the diagnosis of the Watertronics technician on Monday morning. No telephone calls came in from the golf course personnel on Sunday, 10 March 2019.

On Monday, the Watertronics technician had a previously arranged morning appointment; however, he was on site at Aquarina Utilities to troubleshoot the golf course pump between 2:30 and 3:00PM. He remained on site for about 30 minutes, during which time he determined that the fuses that are part of the power supply to the golf course pump had blown and needed to be replaced. He replaced the fuse and left three other fuses in case of additional failures. From 3:30PM until about 12:00AM on Monday, 12 March 2019, water was available to irrigation the golf course. It was noted that the golf course watered the greens until 12:00AM, using more than 90,000 gallons of water.

Aaron, the golf course manager, called Kevin Burge midmorning on Monday to get an update on the pump situation. At this time he offered to get an electrician out to repair the pump. Kevin told him that the utility was going to wait for Watertronics, who already had a technician scheduled, but if Watertronics was unable to come, Kevin would consider Aaron's electrician. As it turns out, Aaron's electrician, Ralph, is well known by Watertronics and was in communication with Watertronics' technician, Ron. Ron advised Ralph, whom he knew personally, that since so many things were new and changed in the golf course irrigation system, Ralph would likely be unable to help with the repair and that Ron would handle it. Also, Ralph would not have been able to even look at the pump until Tuesday sometime, while Ron could get there Monday. Aaron stopped calling Kevin after he was made aware of this scheduling issue.

The fuses blew again after 12:00AM, Tuesday, 12 March 2019. The failure was noted first thing Tuesday morning, and the repair was completed with the extra fuses about 1:30PM. Water was made available to the golf course at that time, and they watered until about 12:00AM and into the morning. The fuses failed yet again at 5:15AM on Wednesday, 13 March 2019. James Sullivan notified Kevin Burge immediately following the failure. Golf course manager Aaron called Holly Burge on the office line at about 7:15AM. As office hours are from 9:00AM to 1:00PM, this call was not received. Aaron immediately called the emergency line and spoke with Kevin Burge. Aaron was immediately belligerent and abusive, screaming into the phone. He refused to discuss the situation with Kevin and talked over Kevin, without allowing Kevin to speak. Kevin attempted to calm him down. Aaron demanded that his electrician be allowed to repair the pump, which Kevin declined as the utility has a relationship with Watertronics and will not use an unknown electrician with unidentified qualifications. Also, as golf course electricians have previously installed equipment on site without the permission of the utility, golf course personnel are no longer allowed on utility property without direct permission from Kevin Burge.

A collection of calls followed between Aaron and Kevin Burge and Kevin Burge and Watertronics. Aaron stated that he was going to call Watertronics himself and get someone out to fix the pump, and Kevin indicated that Aaron had no authority to order work on utility equipment. Kevin thanked Aaron for his offer of help for the repair, but told him that the utility would handle it. Aaron threatened to call the police on the utility and finally stated that utility personnel were banned from the golf clubhouse and the Brassie Grill. Aaron attempted to state that utility personnel were not allowed on golf course property, and

became combative when he was reminded that the utility has legal easements and rights of way that allow access to all utility equipment and lines. Watertronics stated that Aaron had actually called them and tried to schedule a technician for the work but they told him that would not be possible. Aaron was rude to the Watertronics technician and hung up the hung in mid conversation. Meanwhile, at the plant, golf course personnel were harassing utility employees by entering the utility compound without permission and challenging the utility employee on duty. When the golf course employee was asked to leave, he refused and attempted to justify why he should stay.

Kevin continued to field Aaron's calls except when on the line with other individuals. Calls were placed and received from Watertronics, employees, and other individuals in rapid succession. At no time were his calls refused, despite his abusive and unpleasant demeanor. At no time were his calls missed or allowed to go to voicemail.

A Watertronics technician came to service the pump between 10:30AM and 1:15PM, Wednesday, 13 March 2019. The technician conducted an in-depth study of the situation and discovered that, although the fuses were blowing, the root cause of the problem was faulty fuse blocks and their connection to the electrical panel that services the golf course pump. The fuse blocks have been ordered, but will likely take several weeks to arrive, so ongoing issues with the pump may be possible until these parts arrive. The fuse block panel is obsolete and needs to be replaced- a pro-forma item requested in the last rate case, but was denied by the FPSC. The parts were ordered from a company in New York which still manufactures them. Temporary repairs were made to the fuse blocks and the fuses were replaced. Water was available for irrigation by 1:30PM.

With regard to the golf course claim that they have not had water for seven days, this assertion is absolutely false. As indicated above, irrigation was available to the golf course every day except Sunday, the day the first failure occurred. Including Sunday, the entire event transpired over four days, three of which the golf course did, in fact, water their course. Meter reads support this (see table below) as 258,270 gallons were applied to the course Saturday, 9 March 2019. Sunday, 10 March 2019 137,480 gallons of water were applied to the course. The meter read on 14 March 2019 indicates 513,170 gallons of water was applied to the course between Sunday and Thursday, 14 March 2019. Additionally, on Tuesday, 12 March 2019 it rained for two solid hours in the afternoon, so watering was not necessary.

Golf Course Usage 8-14 March 2019

Date	Golf Course Meter Read
Friday 3/8/2019	19017120
Saturday 3/9/2019	19275390
Sunday 3/10/2019	19412870
Thursday 3/14/2019	19926040

Temperatures in Melbourne Beach, FL 8-14 March 2019

Date	Accu-Weather Recorded Hi/Low Temperatures
Friday 3/8/2019	85/58
Saturday 3/9/2019	88/60
Sunday 3/10/2019	84/62
Monday 3/11/2019	87/65
Tuesday 3/12/2019	76/62
Wednesday 3/13/2019	78/63
Thursday 3/14/2019	78/67

Please review the attached photos of both the golf course and the newly sodded areas that Aquarina Golf claim to be damaged or destroyed by this "outage". In all cases the grass is green and healthy. Any areas that are not so are more likely due to the sod sitting on pallets for a week before it was laid, as noted by utility staff, than to any lack of availability of water once it was laid. Also, there are brown and rough areas that have more to do with poor course management than watering, that have been noted by golfers that have played the course regularly for years.

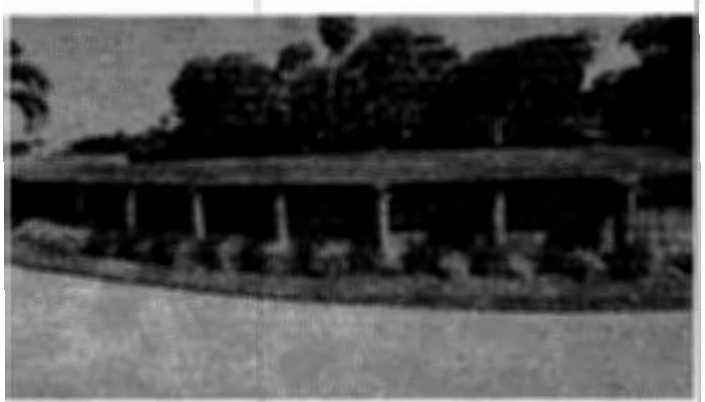
Please let us know if you have any further questions regarding this issue.

Thank you,

Holly B Burge

Holly Burge
Secretary & Treasurer; Aquarina Utilities, Inc.

Photos:



DRINKING WATER MICROBIAL SAMPLE COLLECTION & LABORATORY REPORTING FORMAT

Pace Analytical™
www.pacelabs.com
3610 Park Central Blvd North
Pompano Beach, FL 33064
(954) 582-4300
FDOH #: E86240

Lab Receipt Date & Time: MW 3/8/19 1700
Received for Laboratory By: _____
Analysis Date & Time: 3-19-19 DTB
Sample Acceptance Criteria:
Sample Preservation: ☑ On Ice ☐ Not On Ice 0.4 °C
Disinfectant Check: ☑ Not Detected ☐ _____ mg/L
This sample does not meet the following NELAC requirements: _____

Report Number: 3595499T Sub-Contract Lab ID: _____

Analysis Requested: (please check all that apply)
☐ Total Coliform/E. coli ■ Total Coliform/Fecal ☐ Enterococci ☐ Coliphage ☐ HPC ☐ Other: _____

Public Water System (PWS) Name: Aquarina Utilities, Inc. **PWS I.D.** 3 0 5 4 0 6 0

PWS Address: 235 Aquarina Blvd City: Melbourne Beach

PWS or PWS Owner's Phone #: 772-708-7946 Fax # _____

Collector: Kevin Burge Collector's Phone #: 772-708-7946

Relinquished By: _____ Received By: _____ Relinquished By: _____

Date/Time: 03/18/19 1400 Date/Time: 3/18 1342 Date/Time: 3/18 1541

Type of Supply: (check only one)
■ Community Water System ☐ Non-Transient Non-community Water System ☐ Transient Non-community Water System
☐ Limited Use System ☐ Bottled Water ☐ Private Well ☐ Swimming Pool ☐ Other _____

Reason for Sampling: (check all that apply)
■ Distribution Routine ☐ Distribution Repeat ☐ Raw (triggered or assessment) ☐ Raw (triggered or assessment) additional ☐ Well Survey
☐ Clearance ☐ Replacement (also check type of sample being replaced) ☐ Boil Water notice ☐ Other: _____

Sample Collection Date: 03/1/2018

To be completed by collector of sample

Sample Number	Sample Point (Location or Specific Address)	Sample Collection Time	Sample Type[1]	Disinfectant Res'd (mg/L)	pH
1	Tidewater, 7415 S Hwy A1A	10:00	D	0.4	7.9

Average of disinfectant residuals for distribution routine & repeat samples.[3] Free chlorine or Total chlorine (circle one)

Disinfectant Residual Analysis Method: ☑ DPD Colorimetric ☐ Other: _____

Person performing disinfectant analysis is: (see form instructions)
☑ A certified operator (# A16321) ☐ Employed by a certified lab
☐ Supervised by a cert operator (# _____) ☐ Employed by DEP or DOH
☐ Authorized representative of supplier of water

LABORATORY CERTIFICATE OF ANALYSIS

Total Coliform Analysis Method: (MF)SM9222B (Colilert)SM9223B
Fecal (MF)SM9221E E.coli (MF)EC+MUG (Colilert)SM9223B

Non Coliform	Total Coliform	Fecal or E. coli	Data Qual[2]	Lab Sample #
0	A	A		001

Key: P = Present A = Absent C = Confluent Growth
TNTC = Too Numerous to Count Analyst: RBF
Date & time PWS notified by lab of positive results: _____
Date & time DEP/DOH notified by lab of positive results: _____
Date Report Issued: 3-19-19
Lab Signature: _____
Title: Project Coordinator

Unless otherwise noted, all test results contained within this report meet all applicable Method, Laboratory and TNI guidelines. Questions regarding this report should be directed to the report signatory at the phone number above.

Lab Project Number at top of Form

Name and Mailing Address of Person to Receive Report

Kevin Burge
10475 130th Ave
Fellsmere, FL. 32948

DEP/DOH USE ONLY
☐ Satisfactory
☐ Incomplete Collection Information
☐ Repeat Samples Required
☐ Replacement Samples Required
Date Reviewed by DEP/DOH: _____
DEP/DOH Reviewing Official: _____

1 DEP Sample Types: D=Distribution (routine compliance) C=Repeat/Check R=Raw N=Entry Point to Distribution P=Plant Tap S=Special (clearance, etc.)
2 Defined in Florida Administrative Code Rule 62-160, Table 1
3 Complete for Community & non-community systems serving populations up top and including 4,900.
Do not include raw or plant samples in the average.

62-550.730 Reporting Format Effective 01/1995, Revised 02/2010

DRINKING WATER MICROBIAL SAMPLE COLLECTION & LABORATORY REPORTING FORMAT

Pace Analytical℠
www.pacelabs.com
3610 Park Central Blvd North
Pompano Beach, FL 33064
(954) 582-4300
FDOH #: E86240

Lab Receipt Date & Time: MW 3/18/19 1700
Received for Laboratory By: _____
Analysis Date & Time: 3-18-19 AM PM
Sample Acceptance Criteria:
Sample Preservation: ☑ On Ice ☐ Not On Ice 0.4 °C
Disinfectant Check: ☒ Not Detected ☐ _____ mg/L
This sample does not meet the following NELAC requirements: _____

Report Number: 3545005 Sub-Contract Lab ID: _____

Analysis Requested: (please check all that apply)
☐ Total Coliform/E. coli ■ Total Coliform/Fecal ☐ Enterococci ☐ Coliphage ☐ HPC ☐ Other: _____

Public Water System (PWS) Name: Aquarina Utilities, Inc. **PWS I.D.** 3 0 5 4 0 6 0

PWS Address: 235 Aquarina Blvd City: Melbourne Beach

PWS or PWS Owner's Phone #: 772-708-7946 Fax #: _____

Collector: Kevin Burge Collector's Phone #: 772-708-7946

Relinquished By: _____ Received By: _____ Relinquished By: _____

Date/Time: 03/18/19 1400 Date/Time: 3/18 1346 Date/Time: 3/18 1541

Type of Supply: (check only one)
■ Community Water System ☐ Non-Transient Non-community Water System ☐ Transient Non-community Water System
☐ Limited Use System ☐ Bottled Water ☐ Private Well ☐ Swimming Pool ☐ Other _____

Reason for Sampling: (check all that apply)
☑ Distribution Routine ☐ Distribution Repeat ☐ Raw (triggered or assessment) ☐ Raw (triggered or assessment) additional ☐ Well Survey
☐ Clearance ☐ Replacement (also check type of sample being replaced) ☐ Boil Water notice ☐ Other: _____

Sample Collection Date: 03/18/2019

To be completed by collector of sample

Sample Number	Sample Point (Location or Specific Address)	Sample Collection Time	Sample Type[1]	Disinfectant Res'd (mg/L)	pH
1	450 Aquarina Blvd	9:55	D	0.4	7.7
Average of disinfectant residuals for distribution routine & repeat samples.[3] Free chlorine or Total chlorine (circle one)					

LABORATORY CERTIFICATE OF ANALYSIS

Total Coliform Analysis Method: (MF)SM9222B (Colilert)SM9223B
Fecal (MF)SM9221E E.coli (MF)EC+MUG (Colilert)SM9223B

Non Coliform	Total Coliform	Fecal or E. coli	Data Qual[2]	Lab Sample #
O	A	A		

Key: P = Present A = Absent C = Confluent Growth
TNTC = Too Numerous to Count Analyst: RBT

Lab Project Number at top of Form

Disinfectant Residual Analysis Method: ☑ DPD Colorimetric ☐ Other: _____

Person performing disinfectant analysis is: (see form instructions)
☑ A certified operator (# A16321) ☐ Employed by a certified lab
☐ Supervised by a cert operator (# _____) ☐ Employed by DEP or DOH
☐ Authorized representative of supplier of water

Date & time PWS notified by lab of positive results: _____
Date & time DEP/DOH notified by lab of positive results: _____
Date Report Issued: 3-18-19
Lab Signature: _____
Title: Project coordinator

Unless otherwise noted, all test results contained within this report meet all applicable Method, Laboratory and TNI guidelines. Questions regarding this report should be directed to the report signatory at the phone number above.

Name and Mailing Address of Person to Receive Report

Kevin Burge
10475 130th Ave
Fellsmere, FL. 32948

DEP/DOH USE ONLY
☐ Satisfactory
☐ Incomplete Collection Information
☐ Repeat Samples Required
☐ Replacement Samples Required
Date Reviewed by DEP/DOH: _____
DEP/DOH Reviewing Official: _____

1 DEP Sample Types: D=Distribution(routine compliance) C=Repeat/Check R=Raw N=Entry Point to Distribution P=Plant Tap S=Special (clearance, etc.)
2 Defined in Florida Administrative Code Rule 62-160, Table 1
3 Complete for Community & non-community systems serving populations up top and including 4,900. Do not include raw or plant samples in the average.

62-550.730 Reporting Format Effective 01/1995, Revised 02/2010

DRINKING WATER MICROBIAL SAMPLE COLLECTION & LABORATORY REPORTING FORMAT

Pace Analytical™
www.pacelabs.com

3610 Park Central Blvd North
Pompano Beach, FL 33064
(954) 582-4300
FDOH #: E86240

Lab Receipt Date & Time: MW 3/18/19 1700

Received for Laboratory By: _____

Analysis Date & Time: 3-18-19 1754

Sample Acceptance Criteria:
Sample Preservation: ☒ On Ice ☐ Not On Ice 0.4 °C
Disinfectant Check: ☒ Not Detected ☐ _____ mg/L
This sample does not meet the following NELAC requirements:

Report Number: 3545001 Sub-Contract Lab ID: _____

Analysis Requested: (please check all that apply)
☐ Total Coliform/E. coli ■ Total Coliform/Fecal ☐ Enterococci ☐ Coliphage ☐ HPC ☐ Other: _____

Public Water System (PWS) Name: Aquarina Utilities, Inc. **PWS I.D.** 3 0 5 4 0 6 0

PWS Address: 235 Aquarina Blvd City: Melbourne Beach

PWS or PWS Owner's Phone #: 772-708-7946 Fax # _____

Collector: Kevin Burge Collector's Phone #: 772-708-7946

Relinquished By: _____ Received By: _____ Relinquished By: _____

Date/Time: 03/18/19 1400 Date/Time: 3/18 1342 Date/Time: 3/18 1544

Type of Supply: (check only one)
■ Community Water System ☐ Non-Transient Non-community Water System ☐ Transient Non-community Water System
☐ Limited Use System ☐ Bottled Water ☐ Private Well ☐ Swimming Pool ☐ Other _____

Reason for Sampling: (check all that apply)
☒ Distribution Routine ☐ Distribution Repeat ☐ Raw (triggered or assessment) ☐ Raw (triggered or assessment) additional ☐ Well Survey
☐ Clearance ☐ Replacement (also check type of sample being replaced) ☐ Boil Water notice ☐ Other: _____

Sample Collection Date: 03/17/2019

To be completed by collector of sample

Sample Number	Sample Point (Location or Specific Address)	Sample Collection Time	Sample Type[1]	Disinfectant Res'd (mg/L)	pH
1	450 Aquarina Blvd	9:50	D	2.5	7.6
Average of disinfectant residuals for distribution routine & repeat samples.[3] Free chlorine or Total chlorine (circle one)					

Disinfectant Residual Analysis Method: ☒ DPD Colorimetric ☐ Other: _____

Person performing disinfectant analysis is: (see form instructions)
☒ A certified operator (# A16321) ☐ Employed by a certified lab
☐ Supervised by a cert operator (# _____) ☐ Employed by DEP or DOH
☐ Authorized representative of supplier of water

LABORATORY CERTIFICATE OF ANALYSIS

Total Coliform Analysis Method: (MF)SM9222B (Colilert)SM9223B
Fecal (MF)SM9221E E.coli (MF)EC+MUG (Colilert)SM9223B

Non Coliform	Total Coliform	Fecal or E. coli	Data Qual[2]	Lab Sample #
O	A	A		001

Key: P = Present A = Absent C = Confluent Growth
TNTC = Too Numerous to Count Analyst: RBF

Date & time PWS notified by lab of positive results: _____
Date & time DEP/DOH notified by lab of positive results: _____
Date Report Issued: 3-19-19
Lab Signature: _____
Title: Project Coordinator

Unless otherwise noted, all test results contained within this report meet all applicable Method, Laboratory and TNI guidelines. Questions regarding this report should be directed to the report signatory at the phone number above.

Lab Project Number at top of Form

Name and Mailing Address of Person to Receive Report

Kevin Burge
10475 130th Ave
Fellsmere, FL. 32948

DEP/DOH USE ONLY
☐ Satisfactory
☐ Incomplete Collection Information
☐ Repeat Samples Required
☐ Replacement Samples Required
Date Reviewed by DEP/DOH: _____
DEP/DOH Reviewing Official: _____

1 DEP Sample Types D=Distribution (routine compliance) C=Repeat/Check R=Raw N=Entry Point to Distribution P=Plant Tap S=Special (clearance, etc.)
2 Defined in Florida Administrative Code Rule 62-160, Table 1
3 Complete for Community & non-community systems serving populations up top and including 4,900.
Do not include raw or plant samples in the average.

62-550.730 Reporting Format Effective 01/1995, Revised 02/2010

DRINKING WATER MICROBIAL SAMPLE COLLECTION & LABORATORY REPORTING FORMAT

Pace Analytical™
www.pacelabs.com
3610 Park Central Blvd North
Pompano Beach, FL 33064
(954) 582-4300
FDOH #: E86240

Lab Receipt Date & Time: MW 4/9/19 1641

Received for Laboratory By: _____

Analysis Date & Time: 4-09-19 19:43

Sample Acceptance Criteria:
Sample Preservation: ☑ On Ice ☐ Not On Ice 3.5 °C
Disinfectant Check: ☑ Not Detected ☐ _____ mg/L
This sample does not meet the following NELAC requirements:

Report Number: 3546024 MW 4/9/19 Sub-Contract Lab ID: _____

Analysis Requested: (please check all that apply)
☐ Total Coliform/E. coli ● Total Coliform/Fecal ☐ Enterococci ☐ Coliphage ☐ HPC ☐ Other: _____

Public Water System (PWS) Name: Aquarina Utilities, Inc. **PWS I.D.** 3 0 5 4 0 6 0

PWS Address: 235 Aquarina Blvd City: Melbourne Beach

PWS or PWS Owner's Phone #: 772-708-7946 Fax # _____

Collector: Kevin Burge Collector's Phone #: 772-708-7946

Relinquished By: _____ Received By: _____ Relinquished By: _____

Date/Time: 04/09/19 1330 Date/Time: 4/9 1322 Date/Time: 4/9 1531

Type of Supply: (check only one)
● Community Water System ☐ Non-Transient Non-community Water System ☐ Transient Non-community Water System
☐ Limited Use System ☐ Bottled Water ☐ Private Well ☐ Swimming Pool ☐ Other _____

Reason for Sampling: (check all that apply)
● Distribution Routine ☐ Distribution Repeat ☑ Raw (triggered or assessment) ☐ Raw (triggered or assessment) additional ☐ Well Survey
☐ Clearance ☐ Replacement (also check type of sample being replaced) ☐ Boil Water notice ☐ Other: _____

Sample Collection Date: 04/09/2019

To be completed by collector of sample						LABORATORY CERTIFICATE OF ANALYSIS				
						Total Coliform Analysis Method: (MF)SM9222B (Colilert)SM9223B				
						Fecal (MF)SM9221E E.coli (MF)EC+MUG (Colilert)SM9223B				
Sample Number	Sample Point (Location or Specific Address)	Sample Collection Time	Sample Type[1]	Disinfectant Res'd (mg/L)	pH	Non Coliform	Total Coliform	Fecal or E. coli	Data Qual[2]	Lab Sample #
1	450 Aquarina Blvd	9:30	D	0.6	7.8		A	A.		1
Average of disinfectant residuals for distribution routine & repeat samples.[3] Free chlorine or Total chlorine (circle one)				0.6						

Key: P = Present A = Absent C = Confluent Growth
TNTC = Too Numerous to Count Analyst: APB

Lab Project Number at top of Form

Disinfectant Residual Analysis Method: ☑ DPD Colorimetric ☐ Other: _____

Person performing disinfectant analysis is: (see form instructions)
☑ A certified operator (# A16321) ☐ Employed by a certified lab
☐ Supervised by a cert operator (# _____) ☐ Employed by DEP or DOH
☐ Authorized representative of supplier of water

Date & time PWS notified by lab of positive results: _____
Date & time DEP/DOH notified by lab of positive results: _____
Date Report Issued: 4-10-19
Lab Signature: _____
Title: Project Coordinator

Unless otherwise noted, all test results contained within this report meet all applicable Method, Laboratory and TNI guidelines. Questions regarding this report should be directed to the report signatory at the phone number above.

Name and Mailing Address of Person to Receive Report

Kevin Burge
10475 130th Ave
Fellsmere, FL. 32948

DEP/DOH USE ONLY
☐ Satisfactory
☐ Incomplete Collection Information
☐ Repeat Samples Required
☐ Replacement Samples Required
Date Reviewed by DEP/DOH: _____
DEP/DOH Reviewing Official: _____

1 DEP Sample Types: D=Distribution(routine compliance) C=Repeat/Check R=Raw N=Entry Point to Distribution P=Plant Tap S=Special (clearance, etc.)
2 Defined in Florida Administrative Code Rule 62-160, Table 1
3 Complete for Community & non-community systems serving populations up top and including 4,900.
Do not include raw or plant samples in the average.

62-550.730 Reporting Format Effective 01/1995, Revised 02/2010

Florida Department of Environmental Protection

Central District
3319 Maguire Boulevard, Suite 232
Orlando, Florida 32803-3767

Rick Scott
Governor

Carlos Lopez-Cantera
Lt. Governor

Noah Valenstein
Secretary

August 28, 2017

Kevin R. Burge, Manager
Aquarina Utilities, Inc.
235 Aquarina Boulevard
Melbourne Beach, FL 32941
AquarinaUtilities@bellsouth.net

Re: Compliance Assistance Offer
Aquarina Utilities
PW Facility ID# 3054060

Aquarina Beach Community WWTF
DW Facility ID# FLA010352
Brevard County

Dear Mr. Burge:

Inspections were conducted at your facilities on July 26, 2017, under the authority of Section 403.091, Florida Statutes (F.S.) . During these inspections, potential non-compliance with the requirements under Chapter 403, F.S., Chapter 62-160, Chapter 62-555, Chapter 62-600, and Chapter 62-602, Florida Administrative Code (F.A.C.) were observed. The purpose of this letter is to offer you compliance assistance as a means of resolving this/these matter(s).

Please see the attached inspection reports for a full account of Department observations and recommendations. We request you review the item(s) of concern noted in the attached inspection reports and respond in writing within **15 days** of receipt of this Compliance Assistance Offer. Your written response should either:

1. Describe what you have done or provide a time schedule to address the items of concern noted in the attached reports (see "Deficiencies" section of the reports)
2. Provide information that either mitigates the concerns or demonstrates them to be invalid, or
3. Arrange for one of our inspectors to visit your facilities to discuss the item(s) of concern.

It is the Department's desire that you are able to adequately address the items of concern so that this matter can be closed. Your failure to respond appropriately may result in the initiation of formal enforcement proceedings.

Please address your response and any questions to Manuel F. Cardona of the Central District Office at 407-897-4134 or via e-mail at Manuel.Cardona@dep.state.fl.us. We look forward to your cooperation with this matter.

Sincerely,

Reggie Phillips, Manager
Central District
Florida Department of Environmental Protection

Enclosures: Inspection Reports

State of Florida
Department of Environmental Protection
Central District

SANITARY SURVEY REPORT

Plant Name **AQUARINA UTILITIES** County Brevard PWS ID # **3054060**
Plant Location 235 Aquarina Blvd., Melbourne Beach, FL 32951 Phone 321-327-2930
Owner Name Aquarina Utilities, Inc. Phone 321-327-2930
Owner Address P.O. Box 308, Jensen Beach, FL 34958
Contact Person Kevin Burge Title Director Phone 772-708-7946
This Survey Date 7/26/17 Last Survey Date 1/14/14 Last Compliance Inspection Date 4/30/09

PWS TYPE: Community

PLANT CATEGORY & CLASS: (2C)

MAX-DAY DESIGN CAPACITY: 86,400 gpd

PWS STATUS: Approved

TREATMENT PROCESSES IN USE
Hypochlorination, reverse osmosis, cartridge filter, packed tower aeration, and corrosion control.

SERVICE AREA CHARACTERISTICS
Subdivision
Food Service: ☐ Yes ☐ No ☒ N/A

Number of Service Connections 300
Population Served 750 Basis Operator

OPERATION & MAINTENANCE LOG: Yes
Location Water treatment plant
Comments

CERTIFIED OPERATOR: Yes
Operator(s) & Certification Class-Number:
Kevin Burge A-16321, Cal Schmidt C-14796, and Ron Chupka C8536
Hrs/day: *Required* 1 *Actual* 8
Days/wk: *Required* 5+2 *Actual* 6+1
Non-consecutive Days? ☐ Yes ☐ No ☒ N/A
Comments

MONTHLY OPERATION REPORTS (MORs)
MORs submitted regularly? ☒ Yes ☐ No ☐ N/A
Data missing from MORs? ☒ No ☐ Yes ☐ N/A
Average Day (from MORs) 43,151 gpd
Maximum Day (from MORs) *121,000 gpd 07/2017
Comments *Permitted max-day capacity was exceeded on July 2017. Circumstances appear to be unusual but will continue to be monitored.

Flow Measuring Device Flow Meter
Meter Size & Type Sensus
Date Last Calibrated 9/8/17

RAW WATER SOURCE
☒ GROUND; Number of Wells 2
☐ PURCHASED from PWS ID #
☐ Emergency Water Source
Emergency Water Capacity

STANDBY POWER SOURCE: Yes
Source Baldor diesel
Capacity of Standby (kW) 475
Switchover: ☒ Automatic ☐ Manual
Hrs Operated Under Load 4 hrs/mo.
What equipment does it operate?
☒ Well Pumps All
☒ High Service Pumps All
☒ Treatment Equipment All
Satisfy avg. daily demand? ☒ Yes ☐ No ☐ Unknown
Audio-visual alarm? ☐ Yes ☒ No
Comments A/V alarm required.

PLANS AND MAPS

Coliform Sampling Plan	☒ Yes	☐ No	☐ N/A
D/DBP Monitoring Plan	☒ Yes	☐ No	☐ N/A
Lead and Copper Plan	☒ Yes	☐ No	☐ N/A
Distribution System Map	☒ Yes	☐ No	☐ N/A
Emergency Response Plan	☒ Yes	☐ No	☐ N/A

Comments

PREVENTIVE MAINTENANCE/O&M

Operation & Maintenance Manual	☒ Yes	☐ No	
Preventive Maintenance Program	☒ Yes	☐ No	
Flushing Program	☒ Yes	☐ No	☐ N/A
Records	☒ Yes	☐ No	☐ N/A
Isolation Valve Exercise	☒ Yes	☐ No	☐ N/A
Records	☒ Yes	☐ No	☐ N/A

Comments System has five dead-end mains.

CROSS CONNECTION CONTROL
BFPAs None observed # Tested N/A
WWTP RPZ N/A Date Tested N/A
Written Plan Inadequate Date 3/19/09
Comments Written plan not specific to system

PWS ID # 3054060
Date 7/26/17

GROUND WATER SOURCE

Well Number (Florida Unique Well ID #)		1 (AAC2808) North	2 (AAC2807) Irrigation	3 (AAH7648) South
Year Drilled		1981	1981	Unknown
Depth Drilled		595'	590'	Unknown
Drilling Method		Cable tool	Cable tool	Unknown
Type of Grout		Neat cement	Neat cement	Unknown
Static Water Level		39'	39'	Unknown
Pumping Water Level		Artesian	Artesian	Unknown
Design Well Yield		Unknown	Unknown	Unknown
Test Yield		Unknown	Unknown	Unknown
Actual Yield (if different than rated capacity)		600 gpm	600 gpm	Unknown
Strainer		Unknown	Unknown	Unknown
Length (outside casing)		400'	400'	Unknown
Diameter (outside casing)		18"	18"	18"
Material (outside casing)		Black steel	Black steel	Black steel
Well Contamination History		None	None	None
Is inundation of well possible?		No	Unknown	No
6' X 6' X 4" Concrete Pad		Yes	Unknown	Yes
SET BACKS	Septic Tank	>100'	Unknown	>100'
	Reuse Water	>100'	Unknown	>100'
	WW Plumbing	>100'	Unknown	>100'
	Other Sanitary Hazard	None observed	Unknown	None observed
PUMP	Type	Artesian	Artesian	Artesian
	Manufacturer Name	Berkley	N/A	N/A
	Model Number	B37PM8	N/A	N/A
	Rated Capacity (gpm)	Unknown	N/A	N/A
	Motor Horsepower	10	N/A	N/A
Well casing 12" above grade?		Yes	Unknown	Yes
Well Casing Sanitary Seal		OK	Unknown	OK
Raw Water Sampling Tap		Yes	Unknown	Yes
Above Ground Check Valve		Yes	Unknown	Yes
Security		Yes	Unknown	Yes
Well Vent Protection		N/A	N/A	N/A

COMMENTS Well #1 pumps to the GST. Well # 3 pumps to the RO system.

PWS ID # 3054060
Date 7/26/17

CHLORINATION (Disinfection)
Type: ☐ Gas ☒ Hypo
Make Pulsatron Capacity 30 gpd
Chlorine Feed Rate 50% stroke; 50 spm
Avg. Amount of Cl_2 gas used N/A
Chlorine Residuals: Plant 2.28 Remote 0.24
Remote tap location Tennis Court
DPD Test Kit: ☐ On-site ☒ With operator ☐ None ☐ Not Used Daily
Injection Points Into aerator catchment tank
Booster Pump Info N/A
Comments

AERATION (Gases, Fe, & Mn Removal)
Type Forced draft Capacity 78 gpm
Aerator Condition Good
Visible Algae Growth None
Protective Screen Condition Good
Frequency of Cleaning Every 2 years
Date Last Inspected/Cleaned 2015
Comments

FILTRATION (Suspended Solids Removal)
Type Hytrex Cartridge Filters
Size 5 micron No. of Units 2
Length of Filter Runs 4-6 months
Type of Filter Media Vertical wound cartridge
Is media visible? No Clean after BW? N/A
Filter Rate 80 gpm BW Rate N/A
Filter Capacity 80 gpm
Cracks/Cementation/Channeling None observed
Effluent Stability OK Algae Growth None observed
Turbidity in clearwell? No
Head Loss Gauge Yes
Comments Filters changed in lieu of backwash.

REVERSE OSMOSIS (Dissolved Solids Removal)
Make Codeline (2 stage) Pressure 230 psi
No. of Modules 4 Permeate Cap. 55 gpm
Blend Rate (GPM) 14
Chemicals Used AF 600
Waste-to-product Ratio 1:3
Pre-treatment Filtration, antiscalant
Effluent Quality: TDS (mg/L) N/A
Waste Disposal Site WWTP
IW Permit # & Expir. Date N/A
Comments

STORAGE FACILITIES
(G) Ground (C) Clearwell (E) Elevated
(B) Bladder (H) Hydropneumatic / flow-through

Tank Type/Number	G	H	C
Capacity (gal)	150,000	3,000	350
Material	Concrete	Steel	FG
Gravity Drain	Yes	Yes	Yes
By-Pass Piping	No	Yes	No
Protected Openings	Yes	Yes	Yes
Sight Glass or Level Indicator	Yes	Yes	No
PRV/ARV	N/A	PRV	N/A
Pressure Gauge	N/A	Yes	N/A
On/Off Pressure	8'/12'	45/55	N/A
Access Secured	Yes	Yes	Yes
Access Manhole	Yes	Yes	Yes
Tank Sample Tap Location	Discharge piping	On tank	Discharge piping
Date of Inspection	2013/02	2013/02	N/A
Date of Cleaning	2013/02	2013/02	2015

Comments

HIGH SERVICE PUMPS

Pump #	H1/H2	T1/T2	B1/B2	RO Feed
Type	Centrifugal	Centrifugal	Centrifugal	Vertical turbine
Make	Ampco	Sta-Rite	Ampco	Grundfos
Model	2x1/2ZC2	Unknown	2X1	Unknown
Capacity (gpm)	175	Unknown	Unknown	Unknown
Motor HP	15	1	7.5	15
Date Installed	6/13	6/13	6/13	6/13

Comments

ANTISCALANT
Meets NSF 60 & 61 AF600 - Yes
Comments

PWS ID # 3054060
Date 7/26/17

DEFICIENCIES:

Areas of Concern	Rule	Corrective Action	Date Corrected	Significant Deficiency?
Inadequate Cross-Connection Control Plan (CCCP) on file.	62-555.360(2)	Submit a CCCP that is specific to the distribution system.	Not yet corrected. Per email from Holly Burge dated 8/18/17, a customized draft CCC plan will be completed by 8/25/17.	No
No audio-visual alarm for power failure at site where standby power is required.	62-555.320(14)(f)	Provide an audio-visual alarm system that will activate in the event of any power failure.	Not yet corrected. Per email from Holly Burge dated 8/18/17, a new control panel and auto-dialer should be installed by 9/1/17.	No

MONITORING REMINDER:

- Nitrate and nitrite samples are required to be collected from the point of entry (POE) to the distribution system annually. The 2017 results have not been received. Early sampling is recommended.
- Monitoring schedules are available on the Central District's FTP site: ftp://ftp.dep.state.fl.us/pub/outgoing/Water/

COMMENTS:

- Suppliers of water shall submit written notification to the Department before beginning work or alterations to the public water system. Each notification shall be submitted to the appropriate Department of Environmental Protection District Office or Approved County Health Department and shall include the following: a description of the scope, purpose, and location of the work or alterations; and assurance that the work or alterations will comply with applicable requirements listed in Rule 62-555.330, F.A.C. Suppliers of water may begin such work or alterations 14 days after providing notification to the Department unless they are advised by the Department that the notification is incomplete or that a construction permit is required.
- Suppliers of water shall telephone the SWO at 1-800-320-0519 immediately (i.e., within two hours) after discovery of any actual or suspected sabotage or security breach, or any suspicious incident, involving a public water system. [Rule 62-555.350(10)(a), F.A.C.]
- Suppliers of water shall telephone, and speak directly to a person at, the appropriate DEP District Office as soon as possible, but never later than noon of the next business day, in the event of any of the following emergency or abnormal operating conditions:
  - The occurrence of any abnormal color, odor, or taste in a public water system's raw or finished water;
  - The failure of a public water system to comply with applicable disinfection requirements; or
  - The breakdown of any water treatment or pumping facilities, or the break of any water main, in a public water system if the breakdown or break is expected to adversely affect finished-water quality, interrupt water service to 150 or more service connections or 350 or more people, interrupt water service to any one service connection for more than eight hours, or necessitate the issuance of a precautionary "boil water" notice in accordance with the Department of Health's "Guidelines for the Issuance of Precautionary Boil Water Notices" as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(10)(b), F.A.C.]

COMMENTS(continued):

- Suppliers of water shall notify affected water customers in writing or via telephone, newspaper, radio, or television; and telephone, and speak directly to a person at, the appropriate DEP District Office by no later than the previous business day before taking PWS components out of operation for planned maintenance or repair work if the work is expected to adversely affect finished-water quality, interrupt water service to 150 or more service connections or 350 or more people, interrupt water service to any one service connection for more than eight hours, or necessitate the issuance of a precautionary "boil water" notice in accordance with the Department of Health's "Guidelines for the Issuance of Precautionary Boil Water Notices" as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(10)(d), F.A.C.]
- Suppliers of water shall issue precautionary "boil water" notices as required or recommended in the Department of Health's "Guidelines for the Issuance of Precautionary Boil Water Notices" as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(11), F.A.C.]

Inspector Signature

Manuel F. Cardona
Printed Name

Environmental Specialist
Title

8/25/17
Date

Reviewer Signature

Reggie Phillips
Printed Name

Environmental Manager
Title

8/25/17
Date

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
WASTEWATER COMPLIANCE INSPECTION REPORT

Facility Name and Physical Address	WAFR ID	County	Entry Date	Entry Time
Aquarina Beach Community WWTF 235 Aquarina Boulevard Melbourne, FL 32941	FLA010352	Brevard	7/26/2017	10:15 AM
	Facility Phone # 772-708-7946		**Exit Date** 7/26/2017	**Exit Time** 11:45 PM

LAT	27	°	55	'	14.6139	"
LONG	80	°	29	'	24.3537	"

Name(s) of Field Representatives(s) and Title	Operator Certification #	Email	Phone
Kevin R. Burge, Manager Click or tap here to enter text.	A-14972	aquarinautilities@bellsouth.net Click or tap here to enter text.	772-405-8090 Click or tap here to enter text.

Name & Address of Permittee / Designated Rep.	Title	Email	Phone
Kevin R. Burge Aquarina Utilities, Inc. P.O. Box 308 Jensen Beach, FL 34958 Click or tap here to enter text.	Manager	aquarinautilities@bellsouth.net	772-405-8090

Inspection Type	C	E	I		Samples Taken(Y/N): N	Sample ID#: N/A	Samples Split (Y/N) : N/A

X **Domestic** ☐ **Industrial**

FACILITY COMPLIANCE AREAS EVALUATED

IC = In Compliance; MC = Minor Out of Compliance; NC = Out of Compliance; SC = Significant out of Compliance; NA = Not Applicable; NE = Not Evaluated
Significant Non-Compliance Criteria Should be Reviewed when Out of Compliance Ratings Are Given in Areas Marked by a "♦"

	PERMITS/ORDERS		SELF MONITORING PROGRAM		FACILITY OPERATIONS		EFFLUENT/DISPOSAL
IC	1. ♦Permit	NE	3. Laboratory	IC	6. Facility Site Review	NC	9. ♦Effluent Quality
NA	2. ♦Compliance Schedules	NC	4. Sampling	NC	7. Flow Measurement	IC	10. ♦Effluent Disposal
		NC	5.♦Records & Reports	IC	8.♦Operation & Maintenance	IC	11. Biosolids
						NA	12. Groundwater
NA	14. Other					NA	13. ♦SSO Survey

Facility and/or Order Compliance Status:	☐ In-Compliance	X Out-Of -Compliance	☐ Significant-Out-Of-Compliance

Recommended Actions: Compliance Assistance Offer

Name(s) and Signature(s) of Inspector(s)		District Office/Phone Number	Date
Manuel F. Cardona	Click here to enter text	CD/407-897-4134	8/25/2017

Name and Signature of Reviewer	District Office/Phone Number	Date
Reggie Phillips	CD/407-897-4132	8/25/2017

Single Event Violations				
Check for Yes	Evaluation Area	Description	Finding Description	Finding ID
☐	Effluent Disposal	General	Operation of unpermitted disposal system at a permitted facility.	EDUN
☐	Laboratory	General	The laboratory is not certified by the Department of Health.	LNCE
☐	Permit	General	Unauthorized discharge from the collection system with a high potential for water quality or health impacts	UNBP
☐	Permit	General	The facility is operating without a wastewater permit.	UPHI
☐	Records and Reports	General	Falsification of any record or report	FARR
☒	Records and Reports	General	The Permittee failed to report noncompliance to the Department within 24 hours as required by 62-620.610(20), F.A.C.	RSWP

Facility Treatment Summary: An existing 0.099 mgd annual average daily flow (AADF) permitted capacity extended aeration domestic wastewater treatment plant consisting of influent screening, aeration, secondary clarification, filtration, chlorination, and aerobic digestion of biosolids with effluent disposal to two drainfields.

1. Permit: In-Compliance

Current Permit available on-site?	Yes
Date Permit issued	3/24/13
Date Permit Expires	3/23/18
Permit Renewal Application due by	9/24/17
Administrative or Judicial Orders?	N/A

1.1 Comments: Application for permit renewal is due before 9/24/17.

2. Compliance Schedules: Not Applicable

Compliance Schedule in Permit met?	Not Applicable
Compliance Schedules in Order are being met?	Not Applicable

3. Laboratory: Not Evaluated

Contract Lab Name and Certification #	Pace Analytical Laboratories
Facility DOH Certification #	E86240

3.1 Observation: Current lab certification was onsite.

4. Sampling: Out-of-Compliance

Sampling conducted during inspection?	No
Sampling observed during inspection?	No
Sampling conducted at locations identified by the permit?	Yes
Safe access to sampling locations?	Yes

4.1 Deficiency: The handheld HACH chlorine meter and secondary standards have not been annually verified with primary standards.

Rule/Permit Reference:
DEP SOP 001/01 FT 2000 3.2.3.2- Instruments with pre-set factory calibration should be verified with primary standards before first use and at least annually.

DEP SOP 001/01 FT 2000 3.2.5.2- At a minimum, verify the values of the secondary standards annually or when the meter fails to meet verification requirements with secondary standard; more frequent calibration verifications are required for discharge permit compliance measurements or other regulatory requirements.

Corrective Action: Perform annual verification of the secondary gel standards and chlorine meter with primary standards within 30 days.

4.2 Deficiency: The #10 pH buffer solution used to check the calibration of the pH meter was in use beyond its expiration date.

Rule/Permit Reference: DEP SOP FT1000
4.1. Standard and Reagent Documentation: Document information about standards and reagents used for calibrations, verifications, and sample measurements.
4.1.1. Note the date of receipt, the expiration date and the date of first use for all standards and reagents.
4.1.1.1. Document acceptable verification of any standard used after its expiration date.

Corrective Action: Per email from Holly Burge dated 8/18/17, new buffer solution has been ordered.

5. Records and Reports: Out-of-Compliance

Documents/Records reviewed	Timeframe
Discharge Monitoring Reports (DMRs)	From 07/31/16 to 06/30/17

5.1 Deficiency: Several transcription errors were noted for Fecal Coliform, CBOD, and TSS for the DMR review period.

Rule/Permit Reference: Parts A and B of DEP Form 62-620.910(10), F.A.C. shall be completed and submitted monthly and in a timely manner so as to be received by the appropriate District Office of the Department by the twenty-eighth (28th) of the month following the month of operation.

Corrective Action: Ensure that data entered for Parts A and B of DEP Form 62-620.910(10), is correct and complete.

5.2 Observation: A copy of the operations and maintenance manual was onsite.

5.3 Observation: Copies of operator certifications are onsite and are current.

5.4 Observation: A bound and numbered logbook was onsite. Operator staffing is in accordance with the permit.

6. Facility Site Review: In-Compliance

6.1 Observation: *General* - The facility grounds are properly secured.

6.2 Observation: *Headworks*- The headworks contains a barscreen which is raked daily and dropped into a disposal shoot to ground level.

6.3 Observation: *Aeration Basin* - The facility contains one (1) circular ring aeration basin around the clarifier. The contents in the aeration chambers were brown in color and appeared to be adequately mixed. Some duckweed growth was observed. No excessive noise or odor was noted.

6.4 Observation: *Clarifier* – The facility contains one (1) circular clarifier with a functional rake arm. The weirs appeared level. Some algae growth noted. No sludge pop-ups were noted. Effluent was slightly cloudy.

6.5 Observation: *Disinfection* - Chlorine gas is used for disinfection. Chlorine contact chamber is covered. The chlorine cylinder is stored in a shed with screened ventilation.

6.6 Observation: *Filtration*- The facility has two (2) sand filters which continually backwash.

6.7 Observation: *Digestor* - The digestor had room and was free from excessive odors. No vectors were present.

7. Flow Measurement: Out-of-Compliance

Flow meter present and location as per permit?	Yes
Easy access to flow meter?	Yes
Date of last flow meter calibration	6/16/16

7.1 Deficiency: ETM calibration is overdue.
Rule/Permit Reference: A meter shall be utilized to measure flow and calibrated at least once every 12 months. [62-600.200(25) (b), F.A.C.]
Corrective Action: Have the ETMs calibrated within 30 days.
7.2 Observation: ETM calibrations are performed by the Florida Rural Water Association.

8. Operation and Maintenance: In-Compliance

Facility being operated as per permit?	Yes

9. Effluent Quality: Out-of-Compliance

DMRs review period	From 07/31/16 to 06/30/17
Any exceedances?	Yes

9.1 Deficiency: The Total Suspended Solids (TSS) Monthly Maximum result reported on the DMR for September 2016 exceeded the monthly maximum limit of 10.0 mg/L (12.5 mg/L). The exceedance was not reported to the Department within 24 hours.

Rule/Permit Reference: Per permit condition IX.20.a.(2), The permittee shall report to the Department's Central District Office any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within five days of the time the permittee becomes aware of the circumstances. The written submission shall contain: a description of the noncompliance and its cause; the period of noncompliance including exact dates and time, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.
a. The following shall be included as information which must be reported within 24 hours under this condition:
(2) Any upset which causes any reclaimed water or the effluent to exceed any limitation in the permit.

Corrective Action: Per email from Holly Burge date 8/18/17, notification will be provided to the Department within 24 hours of awareness of the exceedance.

10. Effluent Disposal: In-Compliance

Facility discharging?	Yes
Discharge location(s) as per permit?	Yes

10.1 Observation: Drain fields vegetation is maintained. No effluent ponding was noted. Drain fields are rotated every two weeks.

11. Biosolids: In-Compliance

11.1 Observation: The facility has not hauled biosolids within the last five years, therefore no hauling records are available onsite. Operator stated that in the event of future hauling, the biosolids will be sent to BCUD South Beaches in accordance with the permitted agreement.

12. Groundwater Quality: Not Applicable

DMRs review period	Not Applicable
Any exceedances?	Not Applicable
All monitoring wells accessible, secured & locked?	Not Applicable

13. SSO Survey: Not Applicable

Does the facility have an Operation and Maintenance Manual for their collection system?	Not Applicable
Does the facility track spills in their collection system?	Not Applicable
How does the facility follow up on spills?	Not Applicable
Does the facility have procedures for minimizing spills?	Not Applicable
Are those procedures included in the Operation and Maintenance Manual or in a separate document?	Not Applicable
How often is the manual updated?	Not Applicable

14. Other: Not Applicable

FT 2000. Field Measurement of Residual Chlorine

Use in conjunction with:

- FA 1000 Regulatory Scope and Administrative Procedures for Use of DEP SOPs
- FT 1000 General Field Testing and Measurement
- FS 1000 General Sampling Procedures
- FS 2000 General Aqueous Sampling
- FD 1000 Documentation Procedures
- FC 1000 Cleaning / Decontamination Procedures
- FM 1000 Field Planning and Mobilization

Chlorinating water supplies and polluted waters at treatment facilities is a common practice to destroy or deactivate disease-producing microorganisms. This SOP describes the most commonly used field procedures for measuring the residual chlorine that remains after chlorination.

For reporting limits below 0.2 mg Cl/L, use the titrimetric methods in FT 2020. The methods in FT 2010 or FT 2030 may be used if a lower detection limit and range of calibration can be demonstrated in the sample matrix of interest.

See the applicable referenced methods in FT 2050 if measurements other than total residual chlorine are required. Use this SOP when analyzing drinking water compliance samples for free or total chlorine (section 2.1.2).

FT 2010. DPD Colorimetric Method

1. Scope and Applicability: DEP recommends this method if the testing levels that must be met are between 0.2 to 4.0 mg/L residual chlorine. This method is least affected by the presence of organic matter.

2. Equipment and Supplies

2.1. Field Instruments:

2.1.1. Use any of the following photometric instruments for residual chlorine measurements. The instrument must allow calibration using **at least** two standards and a blank, except as noted in 3.2.2 below.

- Spectrophotometer, for use at a wavelength of 515 nm and a light path of 1 cm or longer;
- Filter Photometer, equipped with a filter having maximum transmission in the wavelength range of 490 to 530 nm and providing a light path of 1 cm or longer or
- Colorimeters designed for residual chlorine measurement

2.1.2. Color Comparator: use only for the analysis of free and total chlorine in drinking water samples for compliance monitoring

2.2. Appropriate laboratory glassware such as volumetric flasks and volumetric pipets.

2.3. Sample Cells (cuvettes): Use sample cells or tubes of clear, colorless glass or plastic specifically designed for the test instrument.

2.3.1. Keep cells clean, both inside and out, and discard if scratched or etched.

2.3.2. Never handle cells where the light beam strikes the sample.

2.3.3. Clean sample cells by thorough washing with laboratory detergent solution (inside and out) followed by multiple rinses with distilled or de-ionized water. Air dry sample cells prior to use or rinse thoroughly with sample before color development and measurement.

2.3.3.1. Sample cells may be rinsed in the field with the detergent step omitted if it is determined that no interference with accurate measurement will occur and that the sample has not left insoluble residue on the surfaces of the cell.

2.3.4. Mask minor imperfections or scratches in the cells with a very thin layer of silicone oil on the outside surfaces. Use silicone oil with the same refractive index of the glass; making sure the cell appear to be nearly dry with little or no visible signs of oil.

2.3.5. Because small differences between cells significantly impact measurement, use optically matched cells or use the same cell for calibration and sample measurement.

2.4. Reagents and Standards:

- DPD reagent powder pillows (from commercial supplier) or
- Phosphate buffer solution and DPD indicator solution (prepared according to SM 4500-Cl-G, 2011, Standard Methods for the Examination of Water and Wastewater).
- Chlorine-demand-free water

2.4.1. Primary Standards: Use standard potassium permanganate solutions or chlorine standards prepared in the appropriate concentration range of interest according to method SM 4500-Cl-G (2011). The primary standards should only be prepared by persons or organizations proficient in preparing analytical standards. Do not reuse primary standards.

2.4.2. Secondary Standards: Use secondary standards certified by the manufacturer for a specific instrument model. Use secondary standards only for continuing calibration verifications according to the procedures in section 3.2.6. Verify the values of secondary standards according to the procedure and frequency outlined in section 3.2.5.

2.4.2.1. Care of Secondary Standards: Protect standards from direct sunlight, heat and scratches.

- Store the standards in the upright position. The most convenient way is to keep the standards in the original storage box provided by the manufacturer.
- During transport to and from the field, keep the standards in an air-conditioned vehicle away from the sun. Do not store on the dashboard or in the trunk if a vehicle.
- If the vehicle is not air conditioned, the standards may be placed in a watertight plastic bag and kept cooled in an ice chest.
- When not in use, store the standards in air conditioning or in ambient air not to exceed 90°F.
- Avoid getting fingerprints on the glass vial. Handle the standards only by the cap.
- Before daily use, inspect the secondary standard vials and, if necessary, clean the outside of the standard vials with a dilute solution of detergent, followed by a deionized is distilled water rinse. Wipe dry with lint-free paper or cloth.

2.4.2.2. Discard the standards set when:

- the standard value can no longer be verified (3.2.5);
- obvious discoloration or fading has occurred,
- residue on the surfaces of the vials cannot be removed,
- scratches are visible on the glass vials; or
- a secondary gel standard has melted or resolidified in a position different from the original.

2.5. Recordkeeping and Documentation Supplies:

- Field notebook or forms (waterproof paper is recommended)
- Indelible pens

3. CALIBRATION AND USE

3.1. Interferences: Sample color and turbidity may interfere in all colorimetric procedures applied to natural and treated waters. Other possible interferences are from: bromine, chlorine dioxide, iodine, permanganate, hydrogen peroxide, and ozone. If interferences are suspected, consult the applicable method for guidance (see FT 2050).

3.2. Calibration

3.2.1. Follow the calibration activities in FT 1000.

3.2.2. Initial Calibration: Use the primary standards (see 2.4.1 above) for initial calibration. An initial calibration must be performed if verification attempts are not successful (see 3.2.4 and 3.2.6 below).

3.2.2.1. Use a minimum of a blank and two standards that bracket the range of the sample measurements.

3.2.2.2. If the instrument cannot be calibrated with a blank and two standards, calibrate with a blank and one standard that bracket the range of the sample measurements.

3.2.2.3. Verify instruments with pre-set or factory calibrations against primary standards per 3.2.3 below.

3.2.2.4. The correlation coefficient of the standard calibration curve must be greater than or equal to 0.995 for all calibrations.

3.2.3. Instruments with Pre-Set or Factory Calibration

3.2.3.1. Instruments with a pre-set calibration do not require an initial calibration if the instrument calibration is verified with primary standards over the range of use (see 3.2.4 and 3.2.6 below for verification procedures).

3.2.3.2. Verify with primary standards before first use and at least annually.

3.2.3.3. Perform an initial calibration (3.2.2 above) when verification attempts are not successful.

3.2.4. Initial Calibration Verification: Immediately after calibrating an instrument, perform an initial calibration verification by reading at least one primary standard as a sample. The value of this standard must be within quantitative calibration bracket established in 3.2.2 above. The instrument reading from this standard must be within 10% of its standard value.

3.2.4.1. Perform initial verifications of color comparators per 3.2.6.4 below.

3.2.5. Determining or Verifying the Values of Secondary Standards:

3.2.5.1. Use only those certified by the manufacturer for a specific instrument. The values of secondary standards may be dependent on the make and model of the instrument. **Perform all steps of the verification process on the same instrument model that will be used with the secondary standards**.

3.2.5.2. At a minimum, verify the values of secondary standards annually or when

- The standards appear to have been damaged;
- The standards were stored in direct sunlight;
- The meter failed to meet verification requirements with the secondary standards
- **More frequent calibration verifications are required for discharge permit compliance measurements or other regulatory requirements.**

3.2.5.3. Determine or verify the values of secondary standards using the following procedure

- Perform an initial calibration or calibration verification with primary standards.

- Select the primary standard concentrations so that the secondary standard concentrations are bracketed with acceptable primary standards.
- Immediately after verifying the acceptability of the calibration, read each secondary standard as a sample.
- This result must be within the manufacturer's stated tolerance range and +/- 10% of the stated standard value.
- If the +/- 10% criterion is not met, but the result is within the manufacturer's stated tolerance range, assign the reading as the value of the standard.
- If the reading is outside the +/- 10% criterion **and** the manufacturer's stated tolerance range, discard the secondary standard.

3.2.6. Continuing Calibration Verification:

3.2.6.1. Perform a continuing calibration verification using at least one primary or secondary standard. The concentration of the CCV standard should be within the initial calibration bracket established in 3.2.2 above and cannot be a zero or blank standard.

- If sample concentrations are outside the range established by the initial calibration, the range may be extended by selecting a continuing calibration verification standard that will bracket the sample concentrations.
- If sample concentrations exceed the range setting of the instrument (e.g., high or low range), verify at least two standards that bracket the sample in the alternate range setting.

3.2.6.2. Each CCV measurement must be within 10% of the known standard value. For secondary standards, use the known value(s) determined in 3.2.5 above. If any CCV attempt fails to meet the 10% acceptance criterion, establish the cause of the failure and reattempt the CCV before analyzing samples. The instrument must be recalibrated with an initial calibration (see 3.2.2 above) if the CCV acceptance criterion cannot be achieved. Qualify as estimated all sample measurement data obtained since the last acceptable verification.

3.2.6.3. Perform a CCV after the last sample measurement has been taken, but no longer than 24 hours after the previous verification. If historically generated data demonstrate that a specific instrument remains stable for longer periods of time, the time interval between calibration verifications may be increased (see FT 1000 section 2.2.5).

3.2.6.4. For color comparators, verify comparator accuracy every six months by evaluating the comparator against primary standards with concentration values bracketing sample measurements. If the comparator readings differ from the standard values by more than 10%, qualify all sample measurements made since the last verification as estimated. Plot the comparator readings against the primary standard values. Use the plotted graph as a correction curve to be applied to future analyses of samples with the comparator. Replace comparators if color scales appear faded or discolored.

3.3. Sample Analysis (spectrophotometer or photometer):

3.3.1. Rinse the cuvette with a small amount of sample.

3.3.2. Discard the rinsate, and fill the cuvette with sample.

3.3.2.1. If samples are colored or turbid, compensate for these interferences by "zeroing" the meter with the sample before adding the chemicals for color development.

3.3.3. Add the reagents (DPD, buffer, etc.) to the sample according to the manufacturer's instructions.

3.3.4. Invert the container to mix.

3.3.5. Wait the required time for color development as specified in the referenced method or manufacturer's instructions. Do not exceed the maximum allowable time for color development before reading the sample.

3.3.6. Gently wipe the sides with a lint-free tissue and insert the cuvette into the instrument.

3.3.7. Follow the instrument's instructions for obtaining the sample value (either by direct read-out or by using a plot of the calibration curve).

3.3.8. After recording the sample reading, remove the cuvette, discard the sample and rinse the cuvette 3 – 5 times with de-ionized or distilled water.

3.3.9. Repeat steps 3.3.1 through 3.3.8 until all samples have been tested.

3.3.10. If the concentration of the samples exceeds the range setting of the instrument (e.g., high or low), change the range setting, and read the samples again. See 3.2.6.1 concerning calibration verification in a different range from the original initial calibration.

3.4. Color Wheel Comparator: Follow the manufacturer's instructions for obtaining the sample value from a color wheel when used for drinking water sample analysis.

4. PREVENTIVE MAINTENANCE: Refer to FT 1000, section 3.

5. DOCUMENTATION:

5.1. Standard and Reagent Documentation: Document information about standards and reagents used for calibrations, verifications, and sample measurements.

6.1.1. Note the date of receipt, the expiration date and the date of first use for all standards and reagents.

5.1.1.1. Document acceptable verification of any standard used after its expiration date.

5.1.2. Record the concentration or other value for the standard in the appropriate measurement units.

5.1.2.1. Note vendor catalog number and description for preformulated solutions as well as for neat liquids and powdered standards.

5.1.2.2. Retain vendor assay specifications for standards as part of the calibration record.

5.1.3. Record the grade of standard or reagent used.

5.1.4. When formulated in-house, document all calculations used to formulate calibration standards.

5.1.4.1. Record the date of preparation for all in-house formulations.

5.1.5. Describe or cite the procedure(s) used to prepare any standards in-house (DEP SOP or internal SOP).

5.2. Field Instrument Calibration Documentation: Document acceptable calibration and calibration verification for each instrument unit and field test or analysis, linking this record with affected sample measurements.

5.2.1. Retain vendor certifications of all factory-calibrated instrumentation.

5.2.2. Designate the identity of specific instrumentation in the documentation with a unique description or code for each instrument unit used.

5.2.2.1. Record manufacturer name, model number, and identifying number such as a serial number for each instrument unit.

5.2.3. Record the time and date of all initial calibrations and all calibration verifications.

5.2.4. Record the instrument reading (value in appropriate measurement units) of all calibration verifications.

5.2.5. Record the name of the analyst(s) performing the calibration.

5.2.6. Document the specific standards used to calibrate or verify the instrument or field test with the following information:

- Type of standard or standard name (e.g., potassium permanganate)
- Value of standard, including correct units (e.g., $KMnO_4$ = 1 mg/L)
- Link to information recorded according to section 5.1 above

5.2.7. Retain manufacturers' instrument specifications.

5.2.8. Document whether successful initial calibration occurred.

5.2.9. Document whether each calibration verification passed or failed.

5.2.10. Document any corrective actions taken to correct instrument performance according to records requirements of FD 3000.

5.2.10.1. Document date and time of any corrective action.

5.2.10.2. Note any incidence of discontinuation of use of the instrument due to calibration failure.

5.2.11. Describe or cite the specific calibration or verification procedure performed (DEP SOP or internal SOP).

5.3. Record all field-testing measurement data, to include the following:

- Project name
- Date and time of measurement or test (including time zone, if applicable)
- Source and location of the measurement or test sample (e.g., monitoring well identification number, outfall number, station number or other description)
- Latitude and longitude of sampling source location (if required)
- Analyte or parameter measured
- Measurement or test sample value
- Reporting units
- Initials or name of analyst performing the measurement
- Unique identification of the specific instrument unit(s) used for the test(s).

FT 2020. TITRIMETRIC METHODS

Residual chlorine can be measured using several different titrimetric methods. These methods take more time, require some skill in making chemical measurements, require several different reagents, and must be performed within 15 minutes of sample collection. Unless the expected concentration levels are below the analytical sensitivity of colorimeters, DEP recommends using the DPD colorimetric method (FT 2010).

If a titrimetric method must be used, select one of the following methods from Standard Methods for the Examination of Water and Wastewater (see Standard Methods Online, http://www.standardmethods.org/store/): SM 4500-Cl B, SM 4500-Cl C, SM 4500-Cl D, SM 4500-Cl E or SM 4500-Cl F (2011 versions). The following general discussions deal with using the titrimetric equipment only.

Quantitative and chronological brackets are not required for these methods.

Titrant solutions must be standardized at the frequencies specified in the above reference methods.

1. The volumetric glassware that is used to transfer and to titrate must be thoroughly clean.

1.1. Use class A pipets for transferring samples and reagents; use a class A buret for titration.

1.2. The volumetric pipets and the buret must be free flowing. This means that there cannot be any droplets remaining on the sides of the glassware when the liquid is dispensed.

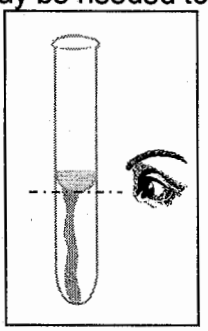
1.3. Check the glassware before use by filling with de-ionized or distilled water and allowing to drain. Do not use the glassware if droplets appear.

1.4. Clean by using a buret brush or soaking. Use hot water and laboratory detergent.

1.5. Rinse with tap water to remove the detergent.

1.6. Rinse with de-ionized water and check for water droplets.

1.7. Additional cleaning with chromic acid, or alcoholic potassium hydroxide may be needed to remove stubborn oil or films.



2. Rinse all glassware with a small amount of the solution to be dispensed or titrated, and discard the rinse.

2.1. Carefully fill (or pipet) with the solution.

2.2. Read the volume from the **bottom** of the meniscus [see figure⇒].

2.3. After filling the buret, record the initial volume.

3. When performing the titration, add the titrant slowly.

3.1. Swirl the flask gently while adding the titrant.

3.2. As the solution comes closer the endpoint, the color change will last for a longer period of time. When this occurs, add the titrant dropwise and mix thoroughly between drops.

3.3. The reaction is complete when the color change is permanent. Take the reading on the buret at the completion of the titration and record the reading.

4. Titrate at least two aliquots of each sample.

5. Titrate at least one blank.

6. DOCUMENTATION:

6.1. Standard and Reagent Documentation: Document information about standards and reagents used for calibrations, verifications, and sample measurements.

6.1.1. Note the date of receipt, the expiration date and the date of first use for all standards and reagents.

6.1.1.1. Document acceptable verification of any standard used after its expiration date.

6.1.2. Record the concentration or other value for the standard in the appropriate measurement units.

6.1.2.1. Note vendor catalog number and description for preformulated solutions as well as for neat liquids and powdered standards.

6.1.2.2. Retain vendor assay specifications for standards as part of the calibration record.

6.1.3. Record the grade of standard or reagent used.

6.1.4. When formulated in-house, document all calculations used to formulate calibration standards.

6.1.4.1. Record the date of preparation for all in-house formulations.

6.1.5. Describe or cite the procedure(s) used to prepare any standards in-house (DEP SOP or internal SOP).

6.1.6. Record the preparation of all reagents in the field notebook or in a form specifically designed for this purpose.

6.1.6.1. Document all titrant standardizations.

7. For each sample and blank, record the volume of each sample, and the beginning and ending readings on the buret.

FT 2030. ION-SELECTIVE ELECTRODE METHODS

1. INTRODUCTION AND SCOPE: Adapted from the "Orion Research Instruction Manual", Residual Chlorine Electrode Model 97-70, 1997, which is cited here for informational purposes. This method may be used if a method detection limit study verifies that the method can achieve the desired permit limits. This is not recommended for on-site use.

2. EQUIPMENT AND SUPPLIES

2.1. Instrument

2.1.1. pH-millivolt meter capable of an expanded 0.1 mV reading.

2.1.2. Platinum-iodide combination electrode (recommended) or

2.1.3. A platinum and an iodide ion selective electrodes.

2.1.4. Magnetic Stirrer

2.2. Reagents and Standards

- pH 4.0 Buffer
- Acetic acid
- Potassium Iodide Solution: Dissolve 42 g potassium iodide and 0.2 g sodium carbonate in 500 mL chlorine demand-free deionized/distilled water.
- Potassium iodate (Primary Standard – 0.00281 N): Dissolve 0.1005 g potassium iodate (KIO_3) in chlorine demand-free deionized/distilled water. Dilute to 1000 mL.

2.3. Recordkeeping and Documentation Supplies:

- Field notebook forms (waterproof paper is recommended) or
- Indelible pens

3. CALIBRATION AND USE

3.1. Standard Preparation: Prepare standards by volumetrically pipetting 0.2, 1.0, and 5.0 mL of the potassium iodate into 100 mL volumetric flasks.

3.1.1. Add 1 mL of the buffer and 1 mL potassium iodide solution to each.

3.1.2. Swirl and let stand for 2 minutes.

3.1.3. Bring to 100 mL, stopper and invert several times to mix.

3.1.4. Prepare a blank by adding all reagents except the potassium iodate to a 100 mL volumetric and bring the volume to 100 mL.

3.2. Initial Calibration: Follow manufacturer's instructions on the use of the instrument. Use the three standards and the blank to calibrate. Plot the curve on semilogarithmic graph paper or enter values into a direct-reading ion meter.

3.3. Verify the initial calibration before proceeding with sample analysis. Read at least one calibration standard as a sample. The measured value must be within 10% of the known value of the standard.

3.4. Continuing Calibration Verification: Use at least one of the standards to check the stability of the standard curve at the end of the analytical run or batch as in 3.3 above.

3.5. Follow the calibration and verification requirements in FT 1000, section 2.2.

3.6. Sample Analysis:

3.6.1. Adjust the pH of the sample with acetic acid to 4 – 5 pH units.

3.6.2. Pipet 1 mL buffer and 1mL potassium iodide into a 100 mL volumetric flask. Swirl to mix and let stand for at least 2 minutes.

3.6.3. Bring to the volume to 100 mL with the pH-adjusted sample, stopper, and invert several times to mix.

3.6.4. Follow manufacturer's instructions for the use of the instrument.

3.7. Calculations:

3.7.1. Read the residual chlorine value in mg/L (R) from the calibration curve: mg/L residual chlorine = R X 100/mL sample used

3.7.2. Record all calculations.

4. PREVENTIVE MAINTENANCE: Refer to FT 1000, section 3.

5. DOCUMENTATION:

5.1. Standard and Reagent Documentation: Document information about standards and reagents used for calibrations, verifications, and sample measurements.

5.1.1. Note the date of receipt, the expiration date and the date of first use for all standards and reagents.

5.1.1.1. Document acceptable verification of any standard used after its expiration date.

5.1.2. Record the concentration or other value for the standard in the appropriate measurement units.

5.1.2.1. Note vendor catalog number and description for preformulated solutions as well as for neat liquids and powdered standards.

5.1.2.2. Retain vendor assay specifications for standards as part of the calibration record.

5.1.3. Record the grade of standard or reagent used.

5.1.4. When formulated in-house, document all calculations used to formulate calibration standards.

5.1.4.1. Record the date of preparation for all in-house formulations.

5.1.5. Describe or cite the procedure(s) used to prepare any standards in-house (DEP SOP or internal SOP).

5.2. Field Instrument Calibration Documentation: Document acceptable calibration and calibration verification for each instrument unit and field test or analysis, linking this record with affected sample measurements.

5.2.1. Retain vendor certifications of all factory-calibrated instrumentation.

5.2.2. Designate the identity of specific instrumentation in the documentation with a unique description or code for each instrument unit used.

5.2.2.1. Record manufacturer name, model number, and identifying number such as a serial number for each instrument unit.

5.2.3. Record the time and date of all initial calibrations and all calibration verifications.

5.2.4. Record the instrument reading (value in appropriate measurement units) of all calibration verifications.

5.2.5. Record the name of the analyst(s) performing the calibration.

5.2.6. Document the specific standards used to calibrate or verify the instrument or field test with the following information:

- Type of standard or standard name (e.g., potassium permanganate)
- Value of standard, including correct units (e.g., $KMnO_4$ = 1 mg/L)
- Link to information recorded according to section 5.1 above

5.2.7. Retain manufacturers' instrument specifications.

5.2.8. Document whether successful initial calibration occurred.

5.2.9. Document whether each calibration verification passed or failed.

5.2.10. Document any corrective actions taken to correct instrument performance according to records requirements of FD 3000.

5.2.10.1. Document date and time of any corrective action.

5.2.10.2. Note any incidence of discontinuation of use of the instrument due to calibration failure.

5.2.11. Describe or cite the specific calibration or verification procedure performed (DEP SOP or internal SOP).

5.3. Record all field-testing measurement data, to include the following:

- Project name
- Date and time of measurement or test (including time zone, if applicable)
- Source and location of the measurement or test sample (e.g., monitoring well identification number, outfall number, station number or other description)
- Latitude and longitude of sampling source location (if required)
- Analyte or parameter measured
- Measurement or test sample value
- Reporting units
- Initials or name of analyst performing the measurement
- Unique identification of the specific instrument unit(s) used for the test(s)

FT 2040. SCREENING METHOD TO DETERMINE THE ABSENCE OF RESIDUAL CHLORINE

1. INTRODUCTION AND SCOPE: In some cases, wastewater treatment plants may need to determine the complete absence of residual chlorine after dechlorination. Some metered instruments may not have sufficient sensitivity to measure below 0.2-mg/L. This procedure was developed by Region 4 of the Environmental Protection Agency to be used to **determine, but not report** the absence of residual chlorine.

2. METHOD: Use any residual chlorine method. If a colorimetric method (FT 2010) is used, the spectrophotometer or colorimeter must be able to distinguish between 0.02 and 0.05 mg/L chlorine. To document the sensitivity, perform a method detection limit study to verify that the method detection limit is at least 0.02 mg/L.

3. PROCEDURE:
See Figure FT 2000-1

3.1. If used, calibrate the meter following FT 2010. Otherwise, use a titrimetric method (FT 2020).

3.2. Perform all tests within 15 minutes of collecting the samples.

3.3. Collect a grab sample at a point just before dechlorination or the effluent of the chlorine contact basin. This is sample **A**.

3.4. Collect a second grab sample after dechlorination. This should correspond to the final effluent monitoring point (sample **B**).

3.4.1. Sample **A** and Sample **B** must differ only by the dechlorination treatment. **There cannot be any waste streams that enter the system between the two collection points**.

3.5. Measure and pour equal volumes of Sample **A** and Sample **B** into a clean container that can be sealed. Use a container that leaves little or no headspace when filled. This is sample **C**.

3.5.1. Cap and gently invert the container (sample **C**) several times to mix the contents. **Do not shake vigorously.**

3.6. Measure the total residual chlorine in samples **A** and **C**.

3.7. Calculate the concentration in sample **B**:

Residual Chlorine in **B** (mg/L) = [**C***2] – **A**

3.8. The absence of residual chlorine is verified if the residual chlorine in **B** is less than or equal to ½ **A***1.10. Refer to figure FT 2000-1 for illustrative examples.

3.9. If the value results in a negative number and a sulfite salt (e.g., sodium bisulfite, sodium metabisulfite) was used to dechlorinate the effluent, less dechlorination agent can be added.

4. DOCUMENTATION: Document the following items as applicable.

4.1. Standard and Reagent Documentation: Document information about standards and reagents used for calibrations, verifications, and sample measurements.

4.1.1. Note the date of receipt, the expiration date and the date of first use for all standards and reagents.

4.1.1.1. Document acceptable verification of any standard used after its expiration date.

4.1.2. Record the concentration or other value for the standard in the appropriate measurement units.

4.1.2.1. Note vendor catalog number and description for preformulated solutions as well as for neat liquids and powdered standards.

4.1.2.2. Retain vendor assay specifications for standards as part of the calibration record.

4.1.3. Record the grade of standard or reagent used.

4.1.4. When formulated in-house, document all calculations used to formulate calibration standards.

4.1.4.1. Record the date of preparation for all in-house formulations.

4.1.5. Describe or cite the procedure(s) used to prepare any standards in-house (DEP SOP or internal SOP).

4.2. Field Instrument Calibration Documentation: Document acceptable calibration and calibration verification for each instrument unit and field test or analysis, linking this record with affected sample measurements.

4.2.1. Retain vendor certifications of all factory-calibrated instrumentation.

4.2.2. Designate the identity of specific instrumentation in the documentation with a unique description or code for each instrument unit used.

4.2.2.1. Record manufacturer name, model number, and identifying number such as a serial number for each instrument unit.

4.2.3. Record the time and date of all initial calibrations and all calibration verifications.

4.2.4. Record the instrument reading (value in appropriate measurement units) of all calibration verifications.

4.2.5. Record the name of the analyst(s) performing the calibration.

4.2.6. Document the specific standards used to calibrate or verify the instrument or field test with the following information:

- Type of standard or standard name (e.g., potassium permanganate)
- Value of standard, including correct units (e.g., $KMnO_4$ = 1 mg/L)
- Link to information recorded according to section 5.1 above

4.2.7. Retain manufacturers' instrument specifications.

4.2.8. Document whether successful initial calibration occurred.

4.2.9. Document whether each calibration verification passed or failed.

4.2.10. Document any corrective actions taken to correct instrument performance according to records requirements of FD 3000.

4.2.10.1. Document date and time of any corrective action.

4.2.10.2. Note any incidence of discontinuation of use of the instrument due to calibration failure.

4.2.11. Describe or cite the specific calibration or verification procedure performed (DEP SOP or internal SOP).

4.3. Record all field-testing measurement data, to include the following:

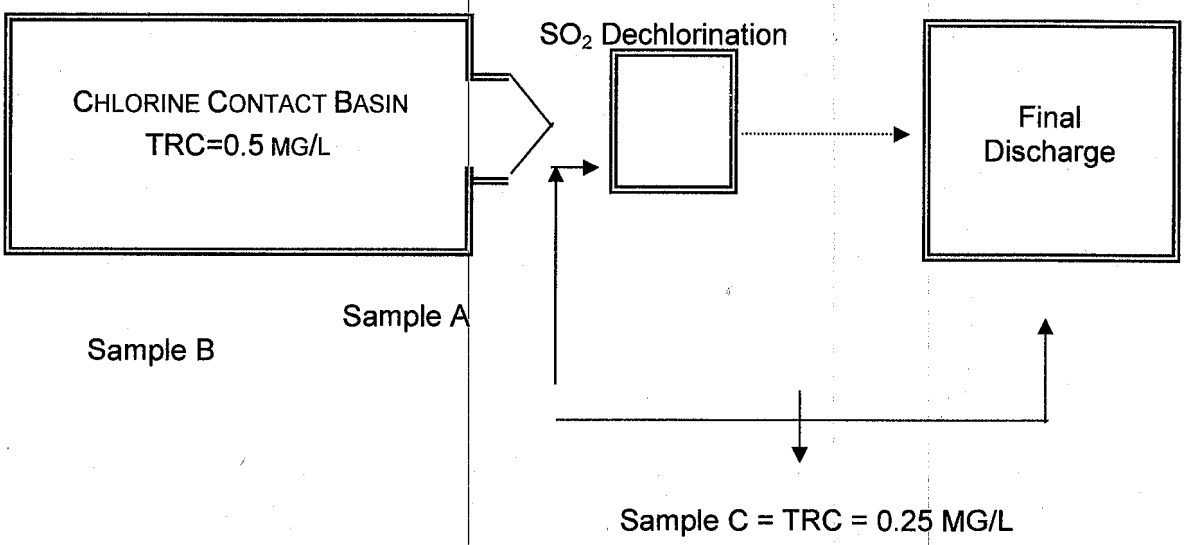
- Project name
- Date and time of measurement or test (including time zone, if applicable)
- Source and location of the measurement or test sample (e.g., monitoring well identification number, outfall number, station number or other description)
- Latitude and longitude of sampling source location (if required)
- Analyte or parameter measured
- Measurement or test sample value
- Reporting units
- Initials or name of analyst performing the measurement
- Unique identification of the specific instrument unit(s) used for the test(s)

Appendix FT 2000
Tables, Figures and Forms

Figure FT 2000-1 Screening Method for Determining Absence of Residual Chlorine

Figure FT 2000-1

SCREENING METHOD FOR DETERMINING ABSENCE OF RESIDUAL CHLORINE



A = Grab sample collected just prior to dechlorination.

B = Grab sample collected downstream of dechlorination at final discharge point.

C = Equal volumes of A & B mixed without aeration and the expectant

$$\text{TRC concentration mg/L} = \frac{A + B}{2} = \frac{0.5 + 0.0}{2} = 0.25$$

If 1/2 A = C, then the TRC at Sample B = <0.01 or the MDL value determined on the instrument whichever was greater.

If 1/2 A > C, then excess SO_2 was added. The TRC concentration would be <0.25 mg/L at Sample C and the TRC for Sample B = 0.0 mg/L and would be reported as a < value.

If C > 1/2 A, then Sample B would have TRC present in final effluent. To calculate the Sample B value: [C * 2] - A = TRC concentration. Example: If the TRC concentration of C = 0.27 and A = 0.5, then B = 0.04.

Inspections Summary4
Yahoo/DEP

- **Cardona, Manuel** <Manuel.Cardona@dep.state.fl.us>

To:Aquarina

Aug 7, 2017 at 4:17 PM

Hi Kevin and Holly,

Thank you for your assistance during the inspections conducted on 7/26. The following deficiencies were noted during the inspection and/or office records review:

PW

1. Failure to have an audio/visual alarm in the event of a power loss. There has to be a light and horn or an autodialer/pager.

2. The CCC Plan needs to be specific to your system. I am attaching the FRWA template for your use.

WW

1. The gel standards are not being compared to a primary standard annually. You mentioned that you order new standards when they expire. However, that would require you to purchase them annually if the expiration date is more than a year.

2. The chlorine meters are not being calibrated annually with a primary standard. This was noted during the last survey.

3. The pH 10 buffer was expired.

4. Monthly monitoring sampling should be documented in the logbook.

5. Operator time in/out not consistently entered in logbook.

6. The September DMR had a TSS exceedance of 12.5/10.0 Max. Whenever an exceedance occurs, the DEP must be notified. See item IX.20.a.(2), page 13 of the permit.

Please let me know your plan of corrective action by 8/11/17. Any questions please call me.

Thank you,

Manny

Manuel F. Cardona

Environmental Specialist

Central District – Orlando

Manuel.Cardona@dep.state.fl.us

Office: 407-897-4134

Hours: M-F/ 8:00 AM – 4:30 PM

DRINKING WATER UPDATE: Incident and Malfunction reports may now be submitted through the FTP site! The PWS ID, system name, and description of the incident, e.g. main break, should be in the file name.

PLEASE NOTE: As of October 1, 2016 all Potable Monitoring reports should be submitted through our FTP site. Instructions for accessing the site can be found by clicking on the button below. All other correspondence related to monitoring should be sent to DEP_CD@dep.state.fl.us.

From: Cardona, Manuel
Sent: Monday, July 17, 2017 1:35 PM
To: aquarinautilities@bellsouth.net
Subject: Aquarina PW & WW Inspections Due

Hello Kevin and Holly,

I would like to schedule the inspections for Aquarina for this Wednesday. Please let me know if you are available.

Brevard	Cardona, Manuel;#811	AQUARINA UTILITIES
Brevard	Cardona, Manuel;#811	Aquarina Beach Commun

Thank you,

Manny

Manuel F. Cardona

Environmental Specialist

Central District – Orlando

Manuel.Cardona@dep.state.fl.us

Office: 407-897-4134

Hours: M-F/ 8:00 AM – 4:30 PM

DRINKING WATER UPDATE: Incident and Malfunction reports may now be submitted through the FTP site! The PWS ID, system name, and description of the incident, e.g. main break, should be in the file name.

PLEASE NOTE: As of October 1, 2016 all Potable Monitoring reports should be submitted through our FTP site. Instructions for accessing the site can be found by clicking on the button below. All other correspondence related to monitoring should be sent to DEP_CD@dep.state.fl.us.

○

---

cccprogramplantemplate080815.doc

312kB

- **Kevin Burge** <aquarinautilities@bellsouth.net>

To:Cardona, Manuel

Aug 18, 2017 at 11:26 AM

Dear Manny,

Sorry for the delay- Kevin had to make an emergency trip to Canada to get his parents and I thought he emailed you already, when he hadn't-

So- Plan of action for correcting faults in Sanitary Survey:

PW

1. Failure to have an audio/visual alarm in the event of a power loss. There has to be a light and horn or an autodialer/pager. We had the generator serviced on Monday and the tech will be quoting us an auto-dialer and a new control panel by next week. We hope to have it installed in another week or so.

2. The CCC Plan needs to be specific to your system. I am attaching the FRWA template for your use. I will be working on customizing the CCC Plan next week. I can send you a draft for your approval by Friday the 25th if you want to look at it.

WW

1. The gel standards are not being compared to a primary standard annually. You mentioned that you order new standards when they expire. However, that would require you to purchase them annually if the expiration date is more than a year. You were going to send us the process by which you certify your gel standards in house with a primary standard.. Otherwise we will continue to repurchase them annually.

2. The chlorine meters are not being calibrated annually with a primary standard. This was noted during the last survey. Again, you were going to send us the lab procedure for making the primary standards.

3. The pH 10 buffer was expired. New buffer has been ordered.

4. Monthly monitoring sampling should be documented in the logbook.

5. Operator time in/out not consistently entered in logbook. We have spoken to the operators and they are now entering their times regularly.

6. The September DMR had a TSS exceedance of 12.5/10.0 Max. Whenever an exceedance occurs, the DEP must be notified. See item IX.20.a.(2), page 13 of the permit. Exceedences will be reported to the DEP by email in addition to the DMR.

Let me know if we need to do anything else.

Thanks,

Holly Burge

Show original message

Download all attachments as a zip file

o

image004.png

32.7kB

o

image001.png

10.9kB

- **Cardona, Manuel** <Manuel.Cardona@dep.state.fl.us>

To:Kevin Burge

Aug 22, 2017 at 10:51 AM

Hi Holly,

As discussed, attached is the SOP that contains information about checking calibration with the primary standard. Based on my conversations with the wastewater folks here, it would probably be easier to contract with a lab to have this done. The previous inspection report indicated that you were going to have Sanders Laboratory do the calibrations. What happened with that?

Please call me at your convenience to discuss.

Thanks,

Manny

Manuel F. Cardona

Environmental Specialist

Central District – Orlando

Manuel.Cardona@dep.state.fl.us

Office: 407-897-4134

Hours: M-F/ 8:00 AM – 4:30 PM

Show original message

FT 2000 5-15-14 NOC.docx

108.9kB

- **Cardona, Manuel** <Manuel.Cardona@dep.state.fl.us>

To: Kevin Burge

Mar 1, 2018 at 9:11 AM

Good Morning Holly/Kevin,

Hope all is well. In doing an audit of my inspection responses, I was unable to locate a final response for the email below. Please see my comments in **red** below.

Thank you,

Manny

Manuel F. Cardona

Environmental Specialist

Central District – Orlando

Manuel.Cardona@floridadep.gov

Office: 407-897-4134

Hours: M-F/ 8:00 AM – 4:30 PM

From: Kevin Burge [mailto:aquarinautilities@bellsouth.net]
Sent: Friday, August 18, 2017 11:27 AM
To: Cardona, Manuel <Manuel.Cardona@dep.state.fl.us>
Subject: Re: Inspections Summary

Dear Manny,

Sorry for the delay- Kevin had to make an emergency trip to Canada to get his parents and I thought he emailed you already, when he hadn't-

So- Plan of action for correcting faults in Sanitary Survey:

PW

1. Failure to have an audio/visual alarm in the event of a power loss. There has to be a light and horn or an autodialer/pager. We had the generator serviced on Monday and the tech will be quoting us an auto-dialer and a new control panel by next week. We hope to have it installed in another week or so. **Provide date of installation.**

2. The CCC Plan needs to be specific to your system. I am attaching the FRWA template for your use. I will be working on customizing the CCC Plan next week. I can send you a draft for your approval by Friday the 25th if you want to look at it.

Provide a copy of the CCC Plan.

WW

1. The gel standards are not being compared to a primary standard annually. You mentioned that you order new standards when they expire. However, that would require you to purchase them annually if the expiration date is more than a year. You were going to send us the process by which you certify your gel standards in house with a primary standard.. Otherwise we will continue to repurchase them annually. **I provided this information in an email dated 8/22/17. What did you decide about the primary standard?**

2. The chlorine meters are not being calibrated annually with a primary standard. This was noted during the last survey. Again, you were going to send us the lab procedure for making the primary standards. **See Item #1. If you did not decide to prepare a primary standard, the meters will have to be sent out annually for calibration.**

3. The pH 10 buffer was expired. New buffer has been ordered.

4. Monthly monitoring sampling should be documented in the logbook.

5. Operator time in/out not consistently entered in logbook. We have spoken to the operators and they are now entering their times regularly.

6. The September DMR had a TSS exceedance of 12.5/10.0 Max. Whenever an exceedance occurs, the DEP must be notified. See item IX.20.a.(2), page 13 of the permit. Exceedences will be reported to the DEP by email in addition to the DMR.

Let me know if we need to do anything else.

Thanks,

Holly Burge

On Monday, August 7, 2017 4:17 PM, "Cardona, Manuel" <Manuel.Cardona@dep.state.fl.us> wrote:

Hi Kevin and Holly,

Thank you for your assistance during the inspections conducted on 7/26. The following deficiencies were noted during the inspection and/or office records review:

PW

1. Failure to have an audio/visual alarm in the event of a power loss. There has to be a light and horn or an autodialer/pager.
2. The CCC Plan needs to be specific to your system. I am attaching the FRWA template for your use.

WW

1. The gel standards are not being compared to a primary standard annually. You mentioned that you order new standards when they expire. However, that would require you to purchase them annually if the expiration date is more than a year.
2. The chlorine meters are not being calibrated annually with a primary standard. This was noted during the last survey.
3. The pH 10 buffer was expired.
4. Monthly monitoring sampling should be documented in the logbook.
5. Operator time in/out not consistently entered in logbook.
6. The September DMR had a TSS exceedance of 12.5/10.0 Max. Whenever an exceedance occurs, the DEP must be notified. See item IX.20.a.(2), page 13 of the permit.

Please let me know your plan of corrective action by 8/11/17. Any questions please call me.

Thank you,
Manny

Manuel F. Cardona
Environmental Specialist
Central District – Orlando
Manuel.Cardona@dep.state.fl.us
Office: 407-897-4134
Hours: M-F/ 8:00 AM – 4:30 PM

DRINKING WATER UPDATE: Incident and Malfunction reports may now be submitted through the FTP site! The PWS ID, system name, and description of the incident, e.g. main break, should be in the file name.

PLEASE NOTE: As of October 1, 2016 all Potable Monitoring reports should be submitted through our FTP site. Instructions for accessing the site can be found by clicking on the button below. All other correspondence related to monitoring should be sent to DEP_CD@dep.state.fl.us.

From: Cardona, Manuel
Sent: Monday, July 17, 2017 1:35 PM
To: aquarinautilities@bellsouth.net
Subject: Aquarina PW & WW Inspections Due

Hello Kevin and Holly,

I would like to schedule the inspections for Aquarina for this Wednesday. Please let me know if you are available.

Brevard	Cardona, Manuel;#811	AQUARINA UTILITIES
Brevard	Cardona, Manuel;#811	Aquarina Beach Community

Thank you,
Manny

Manuel F. Cardona
Environmental Specialist
Central District – Orlando
Manuel.Cardona@dep.state.fl.us
Office: 407-897-4134
Hours: M-F/ 8:00 AM – 4:30 PM

DRINKING WATER UPDATE: Incident and Malfunction reports may now be submitted through the FTP site! The PWS ID, system name, and description of the incident, e.g. main break, should be in the file name.

PLEASE NOTE: As of October 1, 2016 all Potable Monitoring reports should be submitted through our FTP site. Instructions for accessing the site can be found by clicking on the button below. All other correspondence related to monitoring should be sent to DEP_CD@dep.state.fl.us.

- **Kevin Burge** <aquarinautilities@bellsouth.net>

To:Cardona, Manuel

Mar 1, 2018 at 3:48 PM

Dear Manny,

We have had a contracted repair order for the generator, including the auto-switch-over since September 1st, 2017, but they are having trouble tracking down a new muffler and a switch-over module for the unit and have not made the repairs yet. We might need to buy a new generator... we're trying to get funding for a new R/O skid, and the funding for a new generator would be the next item on the pike. I think everything else is good- Kevin is making his own primary drinking water standards...I'm going to go back through your report tomorrow and give you a letter then- if that's okay.

Thanks so much,

Holly Burge

Account Manager; Aquarina Utilities, Inc.

Show original message

- **Cardona, Manuel** <Manuel.Cardona@dep.state.fl.us>

To:Kevin Burge

Mar 5, 2018 at 11:01 AM

Good Morning Holly,

What is the current procedure in the event of a power loss? Also, how about a copy of the CCC Plan?

Thanks,

Manny

Manuel F. Cardona

Environmental Specialist

Central District – Orlando

Manuel.Cardona@floridadep.gov

Office: 407-897-4134

Hours: M-F/ 8:00 AM – 4:30 PM

From: Kevin Burge [mailto:aquarinautilities@bellsouth.net]
Sent: Thursday, March 1, 2018 3:48 PM
To: Cardona, Manuel <Manuel.Cardona@dep.state.fl.us>
Subject: Re: Follow-Up on Aquarina Inspections.

Dear Manny,

We have had a contracted repair order for the generator, including the auto-switch-over since September 1st, 2017, but they are having trouble tracking down a new muffler and a switch-over module for the unit and have not made the repairs yet. We might need to buy a new generator... we're trying to get funding for a new R/O skid, and the funding for a new generator would be the next item on the pike. I think everything else is good- Kevin is making his own primary drinking water standards...I'm going to go back through your report tomorrow and give you a letter then- if that's okay.

Thanks so much,

Holly Burge

Account Manager; Aquarina Utilities, Inc.

On Thursday, March 1, 2018 9:11 AM, "Cardona, Manuel" <Manuel.Cardona@dep.state.fl.us> wrote:

Good Morning Holly/Kevin,

Hope all is well. In doing an audit of my inspection responses, I was unable to locate a final response for the email below. Please see my comments in **red** below.

Thank you,
Manny

Manuel F. Cardona
Environmental Specialist
Central District – Orlando
Manuel.Cardona@floridadep.gov
Office: 407-897-4134
Hours: M-F/ 8:00 AM – 4:30 PM

From: Kevin Burge [mailto:aquarinautilities@bellsouth.net]
Sent: Friday, August 18, 2017 11:27 AM
To: Cardona, Manuel <Manuel.Cardona@dep.state.fl.us>
Subject: Re: Inspections Summary

Dear Manny,

Sorry for the delay- Kevin had to make an emergency trip to Canada to get his parents and I thought he emailed you already, when he hadn't-

So- Plan of action for correcting faults in Sanitary Survey:
PW

1. Failure to have an audio/visual alarm in the event of a power loss. There has to be a light and horn or an autodialer/pager. We had the generator serviced on Monday and the tech will be quoting us an auto-dialer and a new control panel by next week. We hope to have it installed in another week or so. **Provide date of installation.**
2. The CCC Plan needs to be specific to your system. I am attaching the FRWA template for your use. I will be working on customizing the CCC Plan next week. I can send you a draft for your approval by Friday the 25th if you want to look at it.
Provide a copy of the CCC Plan.

WW

1. The gel standards are not being compared to a primary standard annually. You mentioned that you order new standards when they expire. However, that would require you to purchase them annually if the expiration date is more than a year. You were going to send us the process by which you certify your gel standards in house with a primary standard.. Otherwise we will continue to repurchase them annually. **I provided this information in an email dated 8/22/17. What did you decide about the primary standard?**
2. The chlorine meters are not being calibrated annually with a primary standard. This was noted during the last survey. Again, you were going to send us the lab procedure for making the primary

standards. **See Item #1. If you did not decide to prepare a primary standard, the meters will have to be sent out annually for calibration.**
3. The pH 10 buffer was expired. New buffer has been ordered.
4. Monthly monitoring sampling should be documented in the logbook.
5. Operator time in/out not consistently entered in logbook. We have spoken to the operators and they are now entering their times regularly.
6. The September DMR had a TSS exceedance of 12.5/10.0 Max. Whenever an exceedance occurs, the DEP must be notified. See item IX.20.a.(2), page 13 of the permit. Exceedences will be reported to the DEP by email in addition to the DMR.

Let me know if we need to do anything else.

Thanks,

Holly Burge

On Monday, August 7, 2017 4:17 PM, "Cardona, Manuel" <Manuel.Cardona@dep.state.fl.us> wrote:

Hi Kevin and Holly,

Thank you for your assistance during the inspections conducted on 7/26. The following deficiencies were noted during the inspection and/or office records review:

PW

1. Failure to have an audio/visual alarm in the event of a power loss. There has to be a light and horn or an autodialer/pager.
2. The CCC Plan needs to be specific to your system. I am attaching the FRWA template for your use.

WW

1. The gel standards are not being compared to a primary standard annually. You mentioned that you order new standards when they expire. However, that would require you to purchase them annually if the expiration date is more than a year.
2. The chlorine meters are not being calibrated annually with a primary standard. This was noted during the last survey.
3. The pH 10 buffer was expired.
4. Monthly monitoring sampling should be documented in the logbook.
5. Operator time in/out not consistently entered in logbook.
6. The September DMR had a TSS exceedance of 12.5/10.0 Max. Whenever an exceedance occurs, the DEP must be notified. See item IX.20.a.(2), page 13 of the permit.

Please let me know your plan of corrective action by 8/11/17. Any questions please call me.

Thank you,
Manny

Error! Filename not specified.

Manuel F. Cardona
Environmental Specialist
Central District – Orlando
Manuel.Cardona@dep.state.fl.us
Office: 407-897-4134
Hours: M-F/ 8:00 AM – 4:30 PM

DRINKING WATER UPDATE: Incident and Malfunction reports may now be submitted through the FTP site! The PWS ID, system name, and description of the incident, e.g. main break, should be in the file name.

PLEASE NOTE: As of October 1, 2016 all Potable Monitoring reports should be submitted through our FTP site. Instructions for accessing the site can be found by clicking on the button below. All other correspondence related to monitoring should be sent to DEP_CD@dep.state.fl.us.

Error! Filename not specified.

From: Cardona, Manuel
Sent: Monday, July 17, 2017 1:35 PM
To: aquarinautilities@bellsouth.net
Subject: Aquarina PW & WW Inspections Due

Hello Kevin and Holly,

I would like to schedule the inspections for Aquarina for this Wednesday. Please let me know if you are available.

Brevard	Cardona, Manuel;#811	AQUARINA UTILITIES
Brevard	Cardona, Manuel;#811	Aquarina Beach Community

Thank you,
Manny

Error! Filename not specified.	**Manuel F. Cardona** **Environmental Specialist** Central District – Orlando Manuel.Cardona@dep.state.fl.us Office: 407-897-4134 Hours: M-F/ 8:00 AM – 4:30 PM

DRINKING WATER UPDATE: Incident and Malfunction reports may now be submitted through the FTP site! The PWS ID, system name, and description of the incident, e.g. main break, should be in the file name.

PLEASE NOTE: As of October 1, 2016 all Potable Monitoring reports should be submitted through our FTP site. Instructions for accessing the site can be found by clicking on the button below. All other correspondence related to monitoring should be sent to DEP_CD@dep.state.fl.us.

Error! Filename not specified.

- **Aquarina** <aquarinautilities@bellsouth.net>

To: Cardona, Manuel

Mar 5, 2018 at 12:31 PM

Hey Manny,

The generator still works and does switch over. Although it gets stuck sometimes. I have a guy living onsite watching the generator and non potable water system. The fire hydrants are serviced by the non potable system. The procedure is: in case of power outage he is to check to see if the generator switched over. If not, he is to manually start the generator and call me immediately. We should have the auto-switch replaced very soon. We called the manager of the company, ACS, and he promised to get it done ASAP.

Holly will send a copy of CCC plan as soon as possible also. I am sorry for the delay.

Thank you

Kevin

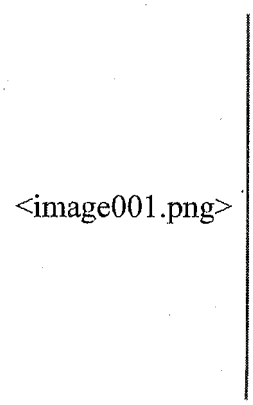
On Mar 5, 2018, at 11:01 AM, Cardona, Manuel <Manuel.Cardona@dep.state.fl.us> wrote:

Good Morning Holly,

What is the current procedure in the event of a power loss? Also, how about a copy of the CCC Plan?

Thanks,

Manny



Manuel F. Cardona

Environmental Specialist

Central District – Orlando

Manuel.Cardona@floridadep.gov

Office: 407-897-4134

Hours: M-F/ 8:00 AM – 4:30 PM

From: Kevin Burge [mailto:aquarinautilities@bellsouth.net]
Sent: Thursday, March 1, 2018 3:48 PM
To: Cardona, Manuel <Manuel.Cardona@dep.state.fl.us>
Subject: Re: Follow-Up on Aquarina Inspections.

Dear Manny,

We have had a contracted repair order for the generator, including the auto-switch-over since September 1st, 2017, but they are having trouble tracking down a new muffler and a switch-over module for the unit and have not made the repairs yet. We might need to buy a new generator... we're trying to get funding for a new R/O skid, and the funding for a new generator would be the next item on the pike. I think everything else is good- Kevin is making his own primary drinking water standards...I'm going to go back through your report tomorrow and give you a letter then- if that's okay.

Thanks so much,

Holly Burge

Account Manager; Aquarina Utilities, Inc.

On Thursday, March 1, 2018 9:11 AM, "Cardona, Manuel" <Manuel.Cardona@dep.state.fl.us> wrote:

Good Morning Holly/Kevin,

Hope all is well. In doing an audit of my inspection responses, I was unable to locate a final response for the email below. Please see my comments in redbelow.

Thank you,
Manny

Manuel F. Cardona
Environmental Specialist
Central District – Orlando
Manuel.Cardona@floridadep.gov
Office: 407-897-4134
Hours: M-F/ 8:00 AM – 4:30 PM

From: Kevin Burge [mailto:aquarinautilities@bellsouth.net]
Sent: Friday, August 18, 2017 11:27 AM
To: Cardona, Manuel <Manuel.Cardona@dep.state.fl.us>
Subject: Re: Inspections Summary

Dear Manny,

Sorry for the delay- Kevin had to make an emergency trip to Canada to get his parents and I thought he emailed you already, when he hadn't-

So- Plan of action for correcting faults in Sanitary Survey:
PW

1. Failure to have an audio/visual alarm in the event of a power loss. There has to be a light and horn or an autodialer/pager. We had the generator serviced on Monday and the tech will be quoting us an auto-dialer and a new control panel by next week. We hope to have it installed in another week or so. **Provide date of installation.**
2. The CCC Plan needs to be specific to your system. I am attaching the FRWA template for your use. I will be working on customizing the CCC Plan next week. I can send you a draft for your approval by Friday the 25th if you want to look at it.
Provide a copy of the CCC Plan.

WW

1. The gel standards are not being compared to a primary standard annually. You mentioned that you order new standards when they expire. However, that would require you to purchase them annually if the expiration date is more than a year. You were going to send us the process by which you certify your gel standards in house with a primary standard.. Otherwise we will continue to repurchase them annually. **I provided this information in an email dated 8/22/17. What did you decide about the primary standard?**
2. The chlorine meters are not being calibrated annually with a primary standard. This was noted during the last survey. Again, you were going to send us the lab procedure for making the primary standards. **See Item #1. If you did not decide to prepare a primary standard, the meters will have to be sent out annually for calibration.**
3. The pH 10 buffer was expired. New buffer has been ordered.
4. Monthly monitoring sampling should be documented in the logbook.
5. Operator time in/out not consistently entered in logbook. We have spoken to the operators and they are now entering their times regularly.
6. The September DMR had a TSS exceedance of 12.5/10.0 Max. Whenever an exceedance occurs, the DEP must be notified. See item IX.20.a.(2), page 13 of the permit. Exceedences will be reported to the DEP by email in addition to the DMR.

Let me know if we need to do anything else.

Thanks,

Holly Burge

On Monday, August 7, 2017 4:17 PM, "Cardona, Manuel" <Manuel.Cardona@dep.state.fl.us> wrote:

Hi Kevin and Holly,

Thank you for your assistance during the inspections conducted on 7/26. The following deficiencies were noted during the inspection and/or office records review:

PW

1. Failure to have an audio/visual alarm in the event of a power loss. There has to be a light and horn or an autodialer/pager.
2. The CCC Plan needs to be specific to your system. I am attaching the FRWA template for your use.

WW

1. The gel standards are not being compared to a primary standard annually. You mentioned that you order new standards when they expire. However, that would require you to purchase them annually if the expiration date is more than a year.
2. The chlorine meters are not being calibrated annually with a primary standard. This was noted during the last survey.
3. The pH 10 buffer was expired.
4. Monthly monitoring sampling should be documented in the logbook.
5. Operator time in/out not consistently entered in logbook.
6. The September DMR had a TSS exceedance of 12.5/10.0 Max. Whenever an exceedance occurs, the DEP must be notified. See item IX.20.a.(2), page 13 of the permit.

Please let me know your plan of corrective action by 8/11/17. Any questions please call me.

Thank you,
Manny

Error! Filename not specified.

Manuel F. Cardona
Environmental Specialist
Central District – Orlando
Manuel.Cardona@dep.state.fl.us
Office: 407-897-4134
Hours: M-F/ 8:00 AM – 4:30 PM

DRINKING WATER UPDATE: Incident and Malfunction reports may now be submitted through the FTP site! The PWS ID, system name, and description of the incident, e.g. main break, should be in the file name.

PLEASE NOTE: As of October 1, 2016 all Potable Monitoring reports should be submitted through our FTP site. Instructions for accessing the site can be found by clicking on the button below. All other correspondence related to monitoring should be sent toDEP_CD@dep.state.fl.us.

Error! Filename not specified.

From: Cardona, Manuel
Sent: Monday, July 17, 2017 1:35 PM
To: aquarinautilities@bellsouth.net
Subject: Aquarina PW & WW Inspections Due

Hello Kevin and Holly,

I would like to schedule the inspections for Aquarina for this Wednesday. Please let me know if you are available.

Brevard	Cardona, Manuel;#811	AQUARINA UTILITIES
Brevard	Cardona, Manuel;#811	Aquarina Beach Community

Thank you,
Manny

Error! Filename not specified.

Manuel F. Cardona
Environmental Specialist
Central District – Orlando
Manuel.Cardona@dep.state.fl.us
Office: 407-897-4134
Hours: M-F/ 8:00 AM – 4:30 PM

DRINKING WATER UPDATE: Incident and Malfunction reports may now be submitted through the FTP site! The PWS ID, system name, and description of the incident, e.g. main break, should be in the file name.

PLEASE NOTE: As of October 1, 2016 all Potable Monitoring reports should be submitted through our FTP site. Instructions for accessing the site can be found by clicking on the button below. All other correspondence related to monitoring should be sent toDEP_CD@dep.state.fl.us.

Error! Filename not specified.

<~WRD025.jpg>

- Reply
- ,
- Reply All
- or
- Forward

- **Kevin Burge** <aquarinautilities@bellsouth.net>

To:Manuel Cardona

Mar 9, 2018 at 10:27 AM

Manny,

I apologize for the delay in getting you the updated CCC Plan. Please let me know if it is acceptable.

Thank you

Kevin Burge

Aquarina CCC plan 2017 rev.pdf

171.2kB

- **Cardona, Manuel** <Manuel.Cardona@dep.state.fl.us>

To:Kevin Burge

Mar 12, 2018 at 2:07 PM

Kevin,

This is acceptable.

Thank you,

Manny

Show original message

- Reply
- ,
- Reply All
- or
- Forward

Send