

State of Florida



Public Service Commission

CAPITAL CIRCLE OFFICE CENTER • 2540 SHUMARD OAK BOULEVARD
TALLAHASSEE, FLORIDA 32399-0850

-M-E-M-O-R-A-N-D-U-M-

DATE: March 15, 2013
TO: Ann Cole, Commission Clerk, Office of Commission Clerk
FROM: James E. McRoy, Utility System/Engineering Specialist, Division of Engineering
RE: Docket No. 120152-WS; Application for increase in water and wastewater rates in Orange County by Pluris Wedgefield, Inc.

RECEIVED-FPSC
13 MAR 15 PM 1:32
COMMISSION
CLERK

Attached is information from the Utility regarding sample testing required by the Department of Environmental Protection (DEP) that was shared with the Utility's customers. Please place the attached document in the docket file.

Should you have any questions, regarding this matter, please contact me.

Attachment

DOCUMENT NUMBER-DATE
01323 MAR 15 2013
FPSC-COMMISSION CLERK

James McRoy

From: Maurice Gallarda <mgallarda@plurisusa.com>
Sent: Wednesday, March 13, 2013 11:26 AM
To: James McRoy
Subject: Wedgefield Educational Letter
Attachments: Wedgefield Customer - Final Draft.docx

Hello Mr. McRoy,
Attached is one of the periodic information pieces going out to Wedgefield customers. It is included in their monthly bills, being mailed today.
Best regards,
Maurice Gallarda

Maurice W. Gallarda, PE
Managing Member and Principal Engineer



Pluris Holdings LLC

T 214.220.3412 F 214.965.9090

2100 McKinney Avenue, Suite 1550, Dallas, TX 75201

This e-mail is subject to the Pluris Holdings email disclaimer.
[Click to read full disclaimer.](#)

DOCUMENT NUMBER-DATE

01323 MAR 15 2013

FPSC-COMMISSION CLERK

March 12, 2013

Dear Pluris Wedgefield Customer,

Pluris will continue sending periodic information briefs on things going on in both the water and wastewater systems here in Wedgefield. We hope the information is informative and helpful.

In discussions with customers, several subjects regarding drinking water were of most interest and these included;

- ✓ **Bacteriological Sampling**
- ✓ **TTHMs and HAA5s**
- ✓ **Annual Consumer Confidence Reports**
- ✓ **Water Softening**

The first two subjects include active things Pluris does and or controls in providing safe drinking water that continues to meet the Florida Department of Environmental Protection ("FDEP") standards.

Presented in the following is a discussion of all four subjects.

Bacteriological Sampling

The Florida Department of Environmental Protection or "FDEP" requires Pluris to prepare a bacteriological sampling plan. This plan includes a map showing pipelines and locations of representative sampling sites within the system to perform monthly bacteriological tests to insure water quality. The sites are rotated quarterly to allow for the most representative sampling possible. The plan is submitted to the FDEP for their review and approval. Eight sites are sampled monthly over two consecutive days. Two of the water samples are collected directly from the water producing wells before any treatment. Once the samples are collected, they are refrigerated at the proper temperature while awaiting the state certified laboratory for pick up. Chain of Custody forms are completed to evidence the sampling event, including the collection time, location and field measured chlorine residual. Once the laboratory completes the testing phase, the completed chain of custody is updated with the test results and forwarded to the Pluris operation staff in Wedgefield. Staff is then required to submit these laboratory completed chain of custody forms to the FDEP. Presented in the following table is a summary of the monthly bacteriological test results to date for 2013.

Bacteriological Sampling and Testing Results		
Sampling Date	Sampling Point	Bacteriologic Test Result
1.7.13	Pluris Well #1	Negative*
1.7.13	Pluris Well #2	Negative*
1.7.13	2333 Archer Blvd	Negative*
1.7.13	2530 Alabaster Avenue	Negative*
1.8.13	2654 Abney Avenue	Negative*
1.8.13	2873 Glen Elm Way	Negative*
1.8.13	3019 Leflore Lane	Negative*
1.8.13	2228 Abalone Blvd	Negative*
2.5.13	Pluris Well #1	Negative*
2.5.13	Pluris Well #2	Negative*
2.5.13	2333 Archer Blvd	Negative*
2.5.13	2530 Alabaster Avenue	Negative*
2.6.13	2654 Abney Avenue	Negative*
2.6.13	2873 Glen Elm Way	Negative*
2.6.13	3019 Leflore Lane	Negative*
2.6.13	2228 Abalone Blvd	Negative*

Note that a "Negative" test results means absence of total coliform in the sample. Any detection of total coliform and the samples are then observed for Escherichia coli, commonly known as E. coli. No E. coli was present.

Total Trihalomethanes and Haloacetic Acids Five

Total Trihalomethanes and Haloacetic Acids Five or commonly known as TTHMs and HAA5s, respectively are common disinfection (chlorine) by-products found in systems involving drinking water treatment. TTHMs and HAA5s can be formed as chlorine degrades beyond the point it is introduced at a water treatment plant to the point that the water is delivered to customer homes. The amount of chlorine for disinfection is regulated by the FDEP as well as the levels for TTHMs and HAA5s. Just like the bacteriological sampling, the FDEP requires Pluris to submit a TTHM and HAA5 sampling plan with requirements of selecting sites that are the most probable to forming TTHMs and HAA5s. Sites are identified by a review of the water distribution system and then submitted to the FDEP for final approval. Once approved by the FDEP, samples are collected and chain of custody forms completed and samples transported to a state certified laboratory. Once the laboratory completes the testing phase, the completed chain of custody form is updated with the test results and provided to the Pluris operation's staff in Wedgefield. Staff is then required to submit these laboratory completed chain of custody forms to the FDEP. Samples are collected on an annual basis unless TTHMs and HAA5s are detected in any sampling event.

As you may be aware, in 2010, prior to Pluris's acquisition of the utility, both TTHMs and HAA5s were detected in water samples above the federal Environmental Protection Agency ("EPA") determined maximum contaminant level ("MCL") for drinking water. Pluris engineers worked closely with the FDEP and provided engineering modifications to the MIEX plant along with operational changes. One of the operational improvements made by Pluris in assuring TTHM and HAA5 remain in compliance was the installation of a new SCADA ("supervisory control and data acquisition") system. Because TTHM and HAA5 are disinfection by-products, in this case chlorine, it is important to monitor and manage chlorine injection as part of the disinfection during treatment. The new SCADA system monitors the chlorine injection 24 hours a day, 7 days a week.

Due to TTHM and HAA5 being detected during the prior ownership, the FDEP required quarterly samples be collected and following Pluris's modifications, every quarterly TTHM and HAA5 test results were below the FDEP limits of 80 microgram per liter ("ug/l") for TTHM and 60 ug/l for HAA5.

Presented below is a summary of the TTHM and HAA5 results dating back to before Pluris's acquisition. The last three quarterly TTHM and HAA5 results from the previous owner are presented to show the transition made after Pluris's acquisition.

Quarter Ending	Owner	TTHM Quarter Results (ug/l)	FDEP Action Level for TTHM (ug/l)	TTHM Annual Trailing Average (ug/l)	HAA5 Quarter Results (ug/l)	FDEP Action Level for HAA5 (ug/l)	HAA5 Annual Trailing Average (ug/l)
June, 2009	Utilities Inc	105.0	80		42.0	60	
September, 2009	Utilities Inc	120.0	80		68.0	60	
December, 2009	Utilities Inc	129.0	80	118.0	71.0	60	60.3
March, 2010	Pluris	74.2	80	107.1	48.0	60	57.3
June, 2010	Pluris	62.1	80	96.3	55.9	60	60.7
September, 2010	Pluris	69.8	80	83.8	45.3	60	55.1
September, 2011	Pluris	55.2	80	62.5	38.2	60	41.8
September, 2012	Pluris	56.5	80	55.9	39.8	60	39.0
September, 2013	Pluris		80			60	

The next TTHM and HAA5 testing required by the FDEP will be in September, 2013 as part of the annual testing. In addition to the required testing, Pluris voluntarily sampled and tested for TTHM and HAA5 recently in February to assure customers that TTHM and HAA5 are still in compliance with the FDEP limits. The TTHM result was 45.7 ug/l and the HAA5 was 51.8 ug/l. The compliance values reflected in the table since Pluris's acquisition are in the range of values found in several nearby government owned utilities including, Orange County utilities, The City of Cocoa, and Orlando Utilities Commission. A detailed comparison of the most recent annual water quality reports between Pluris Wedgefield, Inc. and each of the three aforementioned utilities is available for viewing at Pluris's office in Wedgefield.

Annual Consumer Confidence Reports

The FDEP requires Pluris to compile and complete an annual consumer confidence report, commonly referred to as a "CCR" and provide a copy to customers each year. The CCR contains detected constituent results, primarily from the preceding year but may contain results that are from previous years to comply with FDEP rules and regulations. As with other utilities Pluris utilizes a CCR template provided by the Florida Rural Water Association (<http://www.frwa.net/>). This template has the FDEP required format and wording used by all utilities. The CCR will only show results where the constituent was detected. This explains why some constituents are not seen on a particular annual CCR. Prior to distribution to customers, the CCR is subject to review by the FDEP to assure correct information is provided to customers.

Water Softening

Some customers in Wedgefield have water softeners and in meeting with a number of them in recent months. All of the customers Pluris met with said the reason they had water softeners was due to the "hardness" of the water. Hardness is not regulated by the FDEP and difficult to determine as utilities do not publish the value very often, if at all. Presented in the following table is a typical "Hardness Scale". Hardness is measured in "grains per gallon" or in "milligram per liter". Classification ranges from "soft" to "very hard" based on the measurements.

Water Hardness Scale		
Grains Per Gallon	Milligrams Per Liter (mg/l)	Classification
less than 1.0	less than 17.1	Soft
1.0 - <u>2.47</u> - 3.5	17.1 - 60	Slightly Hard
<i>Pluris highest kitchen faucet test at customer homes</i>		
3.5 - 7.0	60 - 120	Moderately Hard
7.0 - 10.5	120 - 180	Hard
over 10.5	over 180	Very Hard

The hardness of water at the source water wells in Wedgefield, prior to treatment averages around 4.4 grains per gallon, which from the table is classified as "moderately hard". What all of the customers Pluris met with did not know is that the water is softened at the plant before being distributed to homes. Softened water leaving the plant ranges between 2.2 and 2.7 grains per gallon. Pluris tested the hardness at all of the customers met with and the highest result at a kitchen faucet (water softener at the residence was not in use at the time) was 2.47 grains per gallon, as seen in the table above. This value approaches the "soft" water classification and Pluris believes individual water softening is not necessary, but recognizes the choice is up to the customer. Pluris notes that further softening to below the less than 1.0 grain per gallon may lead to the potential for corrosion in metal pipes.

If you have a question regarding harness at your residence, Pluris will be happy to test your water at no cost by contacting Mr. Joe Kuhns, Regional Manager. Just email him at the email address below to schedule a convenient time.

In conclusion, Pluris values you as a customer and hopes that the information provided is informative and helpful in understanding how Pluris is regulated by the FDEP in meeting the requirements for safe drinking water. If you would like to talk in person on any of the items presented, please feel free to contact me by email (jkuhns@plurisusa.com) and we can schedule a convenient time for me to reach you.

Sincerely,

Joe Kuhns
Pluris Regional Manager

PS – A growing number of Wedgefield customers are now on our email group list. Remember to send your email address to (plurisvbsupdates@plurisusa.com) receive a \$5.00 credit on your next bill.