

HC WATERWORKS, INC.

July 24, 2020

Tom Taylor, President
Covered Bridge Association, Inc.
101 Parkview Circle
Lake Placid, FL 33852

RE: Recent Water Quality Issues – Letter to Homeowners Association

Dear Mr. Taylor,

I'm writing at your request to address the recent water quality issues in the Covered Bridge subdivision. As you are probably aware HC Waterworks recently completed installing a force draft aeration treatment system to address the high levels of hydrogen sulfides.

Historical Perspective

The water issues historically experienced in the Leisure Lakes (Covered Bridge) water system is due to several factors. This issue has existed since the original water utility was first placed into service. The raw water source for HC Waterworks' water systems contains naturally occurring constituents, such as iron and high levels of sulfides, which at times can cause undesirable color, taste, and odor. Upon acquisition the HC Waterworks' water treatment plants (WTP) utilized an Adedge filter to remove elemental sulfur from the well water. This system was installed by the previous owner of the utility, prior to HC Waterworks acquiring the utility system. This previous treatment system required oxidation of the hydrogen sulfides by utilizing free chlorine prior to filtration. In addition, to ensure proper treatment, the filters required backwashing to remove the sulfur build-up in the filter media. Unfortunately, this previous treatment system is not the prescribed method of treatment of the level of sulfides in the source water and did not work to remove the sulfide efficiently.

The utility has worked with the Florida Department of Environmental Protection (FDEP) and has recently installed a new water treatment system for sulfide removal. DEP conducted a Sanitary Survey on November 21, 2017, at the Leisure Lakes WTP. On January 18, 2018, DEP issued the results and indicated the Utility was deficient with respect to Rule 62-555.350(2), F.A.C. On October 1, 2018, HC Waterworks and FDEP entered into a Consent Order. This Consent Order required HC Waterworks to modify and install its new water treatment system consistent with the FDEP Construction permit issued September 14, 2018. The Utility was required to make quarterly updates on its efforts to resolve the issue. On April 15, 2020, DEP determined that all conditions of the Consent Order have been completed.

Pursuant to the construction permit, HC Waterworks installed the following:

4939 Cross Bayou Boulevard, New Port Richey, FL 34652
Tel: (866) 753-8292 Fax: (727) 848-7701

1. Installation of a DeLoach packed tower aeration system/forced draft degasification tower sized for a flow of 200 gpm for the removal of hydrogen sulfide.
2. Installation of sulfuric acid chemical feed system for pH adjustment including a 500-gallon double wall containment storage tank and a 35-gallon vertical translucent day tank.
3. Installation of caustic (sodium hydroxide) chemical feed system for pH adjustment including a 200- gallon double wall storage tank and a 22-gallon vertical translucent day tank.
4. Installation of 4,000-gallon hydropneumatics (pressure) tank.
5. All associated piping and injection points.

In addition, a new back-up generator was also installed for reliability. This newly operational forced draft aeration system is now removing the majority of the sulfides contained in the raw water source. Forced draft aeration with pH adjustments have proven to remove up to 90% of total sulfides. These improvements have drastically improved the water as the sulfides are now being removed and the water leaving the water treatment plant is clear.

As previously stated, the sulfide issue has existed for numerous years, prior to the acquisition of the utility. This new treatment has significantly improved the water being provided to the customers. However, although the sulfides are now removed at the source (treatment plant), there may still be residuals throughout the distribution system, as well as inside customers' homes and hot water heaters. This has accumulated over the period of years – ***again prior to the installation of the new treatment process being placed into service.*** It will take time for the residuals to be removed throughout the distribution system, as well as inside the customers' homes. Flushing of the customers' hot water heaters will also assist in this removal process once the new system is operational. This will not be instantaneous.

Recent events affecting the water quality

As we discussed, HC Waterworks recently experienced issues at its water treatment plant due to numerous thunderstorms. During the evening hours of the July 9th through the morning of July 10th, the plant experienced issues with the main control panel at the plant tripping out the pump breakers and causing them to not operate properly. Maintenance responded on July 10th and made a temporary fix.

On July 11th, an alarm was received and it was determined the level in the ground storage tank (GST) dropped due to the clearwell pumps not pumping when needed. Maintenance again made temporary adjustments to ensure the GST was able to stay full and keep the system with water. On July 12th, maintenance made additional adjustments and called the contractor who installed the controls at the plant to be at the plant the next day.

On July 13th, after several hours of troubleshooting it was found that 2 motor starters had been shorted out and burned up due to a lightning strike or surge. New motor starters were

ordered. On July 17th, it was determined that the clearwell pumps were again not running due to another blown fuse in the control panel. A temporary repair was made to ensure the water continued to pump. Over the weekend there were several calls concerning the water quality and maintenance responded by flushing the distribution system.

On July 20th, the two new starters and fuses were installed. Individual surge protectors were also installed on all three control panels. The contractor was again called to return to the plant the following day. On July 21st, the contractor made additional changes to the control panel. It is believed that these issues were caused by the frequent thunderstorms which occurred in the area during these times. Maintenance and our controls contractor were on site to troubleshoot again and reset the PLC and pump run cycles. This will prevent them from causing strong variations in pressure in the system, especially closest to the plant where sediment at the bottom of the pipes was being disturbed causing discolored water.

Due to these electrical issues, the water system experienced a drop in pressure in some areas, which caused discolored water from sediment on the bottom of the pipes. The variation in pressure causes the sediment in the mains to stir-up in the water. Flushing of the lines was increased in the affected areas to clear the water.

In addition, two additional automatic flushers are being installed in the system in the areas that have recently been affected by discolored water. As previously stated, individual surge protectors have been put in place on the various components of the plant. However, on July 22nd, we had a representative from VFC Lightning Protection inspect the facility and they will be providing us with a quote to protect the entire facility from further lightning damage. At this time the water is clear throughout the system.

Sincerely,



Troy Rendell
Vice President
Investor Owned Utilities
// for HC Waterworks, Inc