

## **PWWSD No. 23 Summer 2019 Free Chlorine Burn-out**

PWWSD #23 will be conducting our Semi-Annual Free Chlorine burn-out on September 24, 2019. Some of our member districts are having trouble meeting CL2 residual levels so we are going to conduct a free CL2 burnout. I realize that this is a little short notice, but we would like to get this completed before the next TTHM and HAA5 testing. The main reason for a free chlorine burn-out is to kill biofilm causing nitrifying bacteria in an effort to reduce chlorine demand in the distribution system. These bacteria have been known to cause a loss of chlorine residual in water storage tanks and in high residence time pipelines. Since free chlorine (FC) is a much stronger disinfectant, it will kill the bacteria when chloramines may not.

- We will leave the plant with a free chlorine residual of 4.0 to 5.0 mg/L starting out. We will adjust as needed.
- We all need to be prepared for an increased number of taste and odor complaints.
- It may take as long as **three to four weeks** for a complete burn-out. In order to be sure only FC is in your tower, it is recommended you turn over your tower as many as three times.
- **You** will need to notify any consecutive systems you sell to, and coordinate the burn-out and flushing with them.
- You should notify any hospitals and home dialysis patients in your system of the change to free chlorine.

**Burn-Out Plan - Start September 26, 2019 continuing approx. 3 to 5 weeks**

### **General Order of “free chlorine” flow**

#### **PWWSD 23 - Tower 1**

**West Side Systems:** Fredonia, WL 1, WL 7, WL 2, WL 11, WL 13, Altoona, MG 9, WL 4 and MG 12

#### **PWWSD 23-Tower 2**

**East Side Systems:** WL 10, NO 6, WL 5, Thayer, Buffalo, NO 7, NO 9, WO 1, NO 12, PWWSD 23-T3, and NO 4

**Others:** Coal Hollow Water Co., Fall River, NO 3

### **Notes:**

1. When the FC reaches your tower, we suggest you turn it over at least 3 times unless you are going to drain it. When you are sure your tower/tank has changed to 100% FC, you will need to start flushing your lines vigorously starting as close to your tower as possible. Then continue flushing the system working out from there. This is especially important in low use areas and dead ends.
2. You will have to test your water with free chlorine DPD pillows (supplied) throughout the burn-out. The regulatory minimum is 0.2 mg/L for free chlorine. Keep in mind, during the transition from combined chlorine (chloramines) to FC, you may not detect much of a chlorine residual. You should note in your chlorine residual log that we were conducting the FC burn-out at the time of sampling. Also note that the burnout was occurring on any BacT samples collected.

**I apologize for the short notice, I am expecting to be done with this before the by-products testing and if we wait until November the water temperature may be to cold to do us any good.**

Any questions call:     John (620)-212-0312  
                                  Plant (620) 378-3749