

STEPS TO FOLLOW FOR CHLORINE TESTING AT TRUCKFILL STATIONS

Chlorine testing should be done **2-3 times a day**, every water delivery day. Twenty (20) minutes after the water truck is filled, there should be a Free Available Chlorine (FAC) residual in the water truck between 0.4 mg/L and 0.7 mg/L. The FAC level generally drops if the truck sits overnight. The minimum acceptable FAC in the truck that sits overnight for fire protection purposes is 0.2 mg/L. Water should never be delivered if the FAC is less than 0.2 mg/L.

1. WATER TRUCK THAT SAT OVERNIGHT FOR FIRE PROTECTION (MINIMUM FAC = 0.2 MG/L)

- i. Collect some water from the water truck (either directly from the tank using the access hatch on the top of the truck or from the discharge hose after letting it run for a minute to clear the hose)
- ii. Use the HACH Colorimeter to measure the Free Available Chlorine (FAC) residual (a step by step procedure has been provided)
- iii. Examine FAC residual results:
 - If FAC residual is greater than 0.2 mg/L
 - Deliver the water.
 - If FAC residual is less than 0.2 mg/L
 - Batch chlorinate the water truck.

2. FIRST WATER TRUCK FILLED IN THE MORNING (MINIMUM FAC = 0.4 MG/L)

- i. Fill the truck. As the truck is filling, check the chlorine injection line to make sure the chlorine injection pump is working properly. You should be able to feel the line jerking and see small bubbles in the chlorine solution moving towards the pump.
- ii. **Wait 20 minutes**
- iii. Collect some water from the water truck.
- iv. Use the HACH Colorimeter to measure the Free Available Chlorine (FAC) and the Total Chlorine (TC) residual (a step by step procedure has been provided)
- v. Examine FAC residual results
 - If FAC residual is between 0.4 mg/L and 0.7 mg/L
 - Deliver the water.
 - If FAC residual is less than 0.4 mg/L
 - Batch chlorinate the water truck.
 - Increase the chlorine feed rate on the pump by one notch or 5%.
 - Repeat steps i-v until FAC residual is above 0.4 mg/L.
 - If FAC residual is greater than 0.7 mg/L but less than 1.0 mg/L
 - Deliver the water.
 - Reduce the chlorine feed rate on the pump by one notch or 5%.
 - Repeat steps i-v on the next truck until the FAC is between 0.4 and 0.7 mg/L.
 - If FAC residual is greater than 1.0 mg/L
 - Empty the truck OR, under WTP Operator supervision only, empty 1/3 of the truck, fill the rest with unchlorinated water and retest the FAC after 20 minutes.
 - Reduce the chlorine feed rate on the pump by one notch or 5%.
 - Repeat steps i-v on the next truck until the FAC is between 0.4 and 0.7 mg/L.

3. WATER TRUCK FILLED HALF WAY THROUGH THE DELIVERY DAY

If you deliver water past 2:00pm, a 3rd test should be done once half of the deliveries have been completed.

- i. Follow the same procedures listed under Section 2, except under Step iv, test only the FAC residual (TC not needed).