SunLand Water District

APPENDIX L

DISINFECTION

Disinfection – Emergency Chemical Feed Pump Settings

Per Standard Operating Procedure No. 12 – Chlorination

Required Equipment

- *Chemical Feed Pump*
- *12.5% Sodium Hypochlorite (chlorine)*
- *Chlorine Injector*
- *Chlorine Residual Tester*

Pre-Procedure

- Pump *Chemical Feed Pump* from barrel of *chlorine* into *chlorine* injector.

Procedure

1. ***Preparation***
   a. Set *Chemical Feed Pu*mp to desired initial flow rate.
   b. Plug in *Chemical Feed Pump*.
2. ***Action***
   a. Turn on the well pump; the *Chemical Feed Pump* should now be running.
   b. Using the *Chlorine Residual Tester*, measure the CL.2 free residual at nearby sample tap.
   c. Adjust *Chemical Feed Pump* rate of injection until the CL.2 free residual is at least a 0.8mg/l**.**
3. ***Finishing***
   Using the *Chlorine Residual Tester*, measure the CL.2 free residual at the most remove part of the water system. It has to measure 0.2mg/l or better. If the residual is less than 0.2mg/l, adjust the *Chemical Feed Pump* rate of injection higher.

Documentation

Document the Chemical Feed Pump settings, CL2 residuals, the amount of chlorine left in the barrel, and any changes that were made, etc. LMI Electronic Metering Pump Operating Manual No. 55777 follows this Section.

Disinfection of Water Mains

Per the Environmental Protection Agency (EPA), the construction, rehabilitation, and repair of water mains are extremely common activities that occur on a regular basis in all water systems. The relative frequency and nature of these activities represent a potential contamination risk to water distribution systems if proper procedures and existing standards are not followed. Installation and repair of water mains provides the potential for direct contamination of the distribution system.

Water Main Disinfection Procedure

ANSI/AWWA C651-14 (2014)

This standard presents essential procedures for disinfecting new and repaired water mains. Topics covered include forms of chlorine disinfection, a description of the disinfection procedure, preventive and corrective measures during construction, methods of chlorination, final flushing, bacteriological testing, re-disinfection, final connections to existing mains, disinfection procedures when cutting into or repairing existing mains, and special procedures for caulked tapping sleeves. Appendices cover chlorine residual testing, and disposal of heavily chlorinated water.