

WATER QUALITY MONITORING

The Cudahy Water Utility staff monitors both raw and treated water for chemical and microbiological quality. This is accomplished in many different ways. Law requires some of these tests and procedures, while others are performed for operational control. Regardless of why the test is taken, all results are used to ensure the consumer receives the finest and safest water available.

The most comprehensive and perpetual type of monitoring in the plant is through automated or on line monitoring. Automatic sensing units send water quality information of varying degrees to the central operating computer every few seconds, giving operators constant and immediate water conditions. Turbid meters and particle counters monitor the physical condition of incoming and outgoing water. Turbid meters measure the relative clarity of the water while the particle counters monitor the number and specific sizes of particles in the water using laser technology. Particle counters are not required by law, but provide operators and staff with very detailed information on just what is in the water. In addition, by monitoring the incoming and outgoing water, the efficiency and quality of the treatment process can be measured.

Chlorine analyzers in various stages of the treatment process can tell the operator how much chlorine to add and how much is being used.

Chemical and biological analysis through laboratory testing is the most common and prevalent type of quality control performed in the plant. Chlorine, fluoride, ph, turbidity and phosphate tests are run constantly throughout the day. Microbiological testing which includes multiple tube fermentation, Colilert and heterotrophic plate count testing, are completed on a daily and as-needed basis.