

TN Utilities Switch to a Simple and Cost Effective Alternative to Bleach and Gas Disinfection!

In 2018 Specialized Operations Services supplied and installed 4 TN utilities with simple, cost efficient, constant strength, and easy to store, alternative disinfection systems, these calcium hypochlorite (dry Chlorine) Constant Chlor systems are manufactured by Lonza.

The TN Utilities that switched to the Constant Chlor systems in 2018 are The Hamilton County Wastewater Authority, ORNL Water, Lewisburg's Water and Wastewater plants. These Utilities all were replacing gas systems or using the Constant Chlor systems as a backup to their UV systems.

The owners all indicated that they selected the Lonza Constant Chlor systems for several very obvious and simple reasons; (1) Cost – the Constant Chlor Systems are inexpensive to purchase and install when comparing to all other disinfection technologies including bulk bleach. (2) The systems are automated and very simple to use, and require very little routine maintenance. (3) Unlike bleach systems, the disinfectant strength does not degrade, and thus does not breakdown into highly regulated byproducts like bleach or chlorine gas, the disinfectant strength is produced and kept constant at 1.2%, for easy dosing. (4) The chemical can be stored for years with virtually no loss in strength.



Duplex 150 PPD Constant Chlor Systems at a TN Water Treatment Plant.

The systems are fully automated and make the constant strength chlorine solution at 1.2% and its maintained at 1.2% by an integral mixing system, the system makes additional solution when the level control calls for more production. The touchscreen control panel provides system status and

any alarms should they occur. Solution is injected into the treated water by a variable speed metering pump system.

These systems are simple to operate, and the systems are completely automated, the system will maintain a full tank of solution via level controls, and chemical can be injected automatically via any control methodology (flow, residual, compound loop), and monitored by any standard chlorine monitoring system. Since the chlorine solution is not highly concentrated and is used as its made it will no breakdown or degraded into highly regulated byproducts, or lose disinfecting strength like bleach systems. Systems can be connected to remote monitoring or SCADA systems.

The chemical if not stored in direct sunlight can last for years with virtually no chemical strength loss. The chlorine briquettes are manufactured in Calhoun TN just north Cleveland TN.

The system requires only a small area for installation, as no large bulk tanks or even large days tanks are required, and the system can operate from a 120 vac source.



50 PPD Constant Chlor System at Hamilton Co Waste Water Plant

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