

Long Beach Water Treatment Plant

Objective: THM/THAA Reduction

Requirements: Local Service & Support

Equipment List: Millennium III Auto Flow-Pacing Batch Chlorine Dioxide System
Chem-Ad Metering Pump
Optek CL02 Optical Analyzer

Process: Reaction for the two chemicals Cl_2 and Sodium Chloride process take place under vacuum and as is follows :

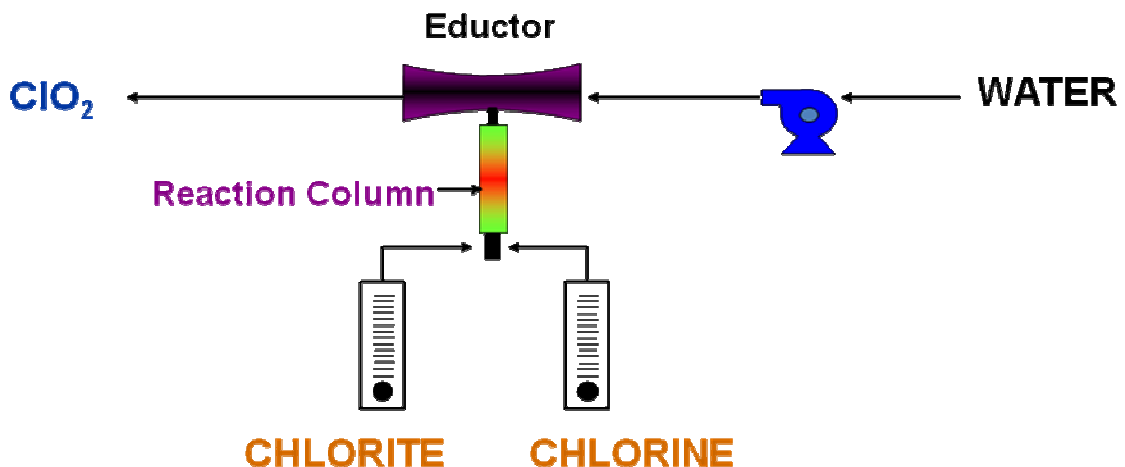


Chlorine dioxide was chosen as a pre-oxidant / primary disinfectant to assist in THM / THAA reduction to achieve EPA Stage I and Stage II disinfection by-product rules and for enhanced manganese reduction. It is applied to the plant's raw incoming surface water ahead of coagulation and flocculation.

Chlorine dioxide was an assist to Long Beach in meeting state and federal water quality standards / regulatory requirements surrounding MCL limits on THM's and THAA's.

Manufacturer: Siemens Water Technologies

Millennium III™ Process Flow



**2 Chemical Vapor-Phase
 Cl_2 and 25% Sodium Chlorite**