Municipal Water

Southeast Water Purification Plant (SEWPP) 80 mgd Expansion

City of Houston | Houston, Texas

Date Completed:

2010

Construction Cost:

$170 Million

Client or Owner's Rep:

Mr. Raj Singh, PE
Managing Engineer
City of Houston

Highlights:

- ✓ **Water Treatment Process**
- ✓ **Hydraulics**
- ✓ **Process, Mechanical, Electrical, Instrumentation, Controls and SCADA**
- ✓ **Planning, Study, PER, Design Phase and Construction Phase Services**
- ✓ **TCEQ Permitting**
- ✓ **Constructability**
- ✓ **Efficient Operation**

Photo: *Chemical Metering Pumps, Acid/Alkaline Off-Spec Holding Tank and Pumps, and Unloading Station*

Project Description | The project included expansion of the existing Southeast Water Purification Plant from 120 mgd to 200 mgd.

Services Provided | As a sub-consultant to CDM Smith, KGI was responsible for performing the process, mechanical and electrical design for all of the Chemical and Chlorine Systems for the 80 mgd Expansion. In addition, KGI is responsible for coordination of all other disciplines such as Civil, Structural, Architectural and HVAC for the Chemical and Chlorine Systems. KGI completed the conceptual study which was approved by the Client. The study saves the City approximately $2.0 million dollars by eliminating the traditional Day Tanks and the associated equipment costs. KGI's scope includes the following major chemical systems – Aqueous Ammonia, Caustic, Alum/Ferric Sulfate, Fluosilicic Acid, Polymers, Powder Activated Carbon, Lime and Chlorine.