

Industrial

Date Completed:

2001

Construction Cost:

\$3.6 Million

Client or Owner's Rep:

Valero (formerly Clark Refining)

Highlights:

- ✓ **Innovation**
- ✓ **Reduced O&M Costs**
- ✓ **Conical Sludge Collection**
- ✓ **Improved Safety**
- ✓ **Nitrogen Blanketing**
- ✓ **Better VOC Control Reducing Emissions**

Photo: Port Arthur Refinery
WWTP Aerial

API Separator Improvements

Valero (formerly Clark Refining) | Port Arthur, Texas

Project Description | Evaluation of existing Wastewater Treatment Facilities to improve Safety and Operations in order to consistently meet the regulatory compliance requirements.

Services Provided | KGI has performed a conceptual study and preliminary engineering of the existing wastewater facilities. The study looked into the Operations and Safety aspects of the project and identified deficiencies in the existing system and proposed improvements to bring the plant into compliance. Some of the major improvements included:

- Modifications to the existing three API Separators including replacing existing floating roof covers with fixed roof covers.
- Reroute Volatile Organic Compounds (VOCs) from API and DNF to a dedicated Incinerator instead of treating in the existing Regenerative Thermal Oxidizer (RTO).
- Improvements to existing API Separator Influent Piping to equalize flow.
- Install Surge Tank upstream of treatment facilities to equalize inflow to the plant.

