

Industrial

Date Completed:

2000 - 2006

Construction Cost:

N/A

Client or Owner's Rep:

Chevron Phillips USA

Highlights:

- ✓ **Water & Wastewater Treatment**
- ✓ **Chemical and Petro-Chemical Plants**
- ✓ **Start-Up and Training**
- ✓ **Operating Procedures**
- ✓ **Funding and Preparation of Appropriation Requests (A/R)**

Photo: Vent Pipe Seals
(NsertAseal Corporation)

Storm and Process Sewer Evaluation

Shell USA | Martinez, California

Project Description | Sewer Evaluation for Shell Martinez Refinery to meet California BAAQMD Regulations.

Services Provided | Shell Martinez Refinery has to meet Bay Area Air Quality Management District (District) Regulation 8, Rule 8 which requires all uncontrolled wastewater collection system components at petroleum refineries be equipped with a water seal or equivalent. KGI performed a comprehensive evaluation of the off-site process wastewater sewers from Light Oil Products (LOP) area and Operations & Central Control (OPCEN) area. Some of the improvements recommended to meet District Regulation 8, Rule 8 include the following:

- Seal the Sewer System with No Vents
- Install Sewer Vent Treatment (Carbon) Systems
- Install Sewer Vent Collection (with Exhaust Fan) and Treatment System
- Install Pressure/Vacuum Relief Devices
- Install LEL detectors at key locations
- Determine the necessity of carbon canisters for treatment of VOCs.
- Develop conceptual improvements to improve the operability, decrease maintenance and improve safety of the existing sewer system.

During detailed design, KGI assisted in review of P&IDs, participated in HAZOP, performed hydraulic calculations, reviewed piping drawings and developed operating procedures.

