

## PROJECT PROFILE

**Owner:**

Valero Oil Refinery

**Project Name:**

Furnace Safety Shutdown Controls

**Project Location:**

Benicia, CA



**Technical Summary:**

Bay-Tec Engineering designed and built a safety shutdown and O<sub>2</sub>/Combustible gas monitoring system for the F-104 Furnace at the refinery in Benicia California. The system contained Rosemount O<sub>2</sub>/Combustible stack analyzers, Triconex Tricon PLC and PLC enclosure to allow for an operator to monitor process points locally or from the Control House. The safety shutdown system included the engineering, selection and procurement of all Fuel and Pilot Gas valves, analyzers, ignitor/flame rods for the safety shutdown system. Bay-Tec managed the mechanical and electrical subcontracts for the field modifications of the process heater and installation of the safety shutdown system.

**Scope Responsibility:**

Bay-Tec was responsible for complete system design including FG/ PG manifolds, mechanical and E&I inclusive of: Instrument specifications and datasheets, control panel design and fabrication, FG/PG delivery system, analyzer/instrument procurement and installation, software design and integration, loop checks and calibration, system commissioning and start-up support.