



Chevron Products Company

Salt Lake City Refinery
2351 North 1100 West
Salt Lake City, UT 84116

Challenge: Chevron Products Company needed to replace their existing electrostatic precipitator with a new ESP to treat the flue gas from a fluid catalytic cracker (FCC). The new precipitator needed to meet an emission limit of 5.5 lb/hr when treating the maximum inlet load and maximum gas volume with any combination of two (2) bus sections out of service. Their objective was to maintain continuous on-line reliability for periods of five (5) years.

Southern Environmental's Solution:

Southern Environmental, Inc. provided detailed engineering, material supply, fabrication, construction, start up services and 1/10th scale physical model study for a new FCCU ESP, including new inlet and outlet duct work to connect the ESP to the existing inlet and stack. The discharge electrodes used were SEI's patented SEI/ELEX RS Rigid Discharge Electrodes (RDE). Additionally a pre-fabricated Precipitator MCC Building was supplied with the housed equipment pre-installed. The ESP consisted of a single casing with six (6) mechanical fields in the direction of gas flow and three (3) hoppers.

Project Duration:

- PO Received: July 2008
- Materials delivered: March 2009
- Start-up: September 2009

Detailed Engineering in the following disciplines:

- Structural
- Mechanical
- Electrical
- Civil

Fabrication and Construction Services:

- ESP Fabrication
- Field Technical Support
- Mechanical Construction
- Insulation Installation
- Electrical Installation

Guaranteed Outlet PM Emissions:

0.001 gr/acf when any four (4) of the twelve (12) electrical sections are out of service.



Emissions from the stack are guaranteed not to cause a discharge into the atmosphere of any gases that exhibit greater than 5% opacity when any four (4) of the twelve (12) electrical sections are out of service.

