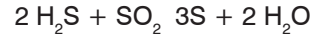


■ ENGINEERING ■ ARCHITECTURE ■ DESIGN-BUILD ■ GEOSPATIAL SOLUTIONS ■ SURVEYING

Merrick & Company provided detailed engineering startup support for the addition of a sulfur recovery unit (SRU) at Colorado Refining Company’s refinery in Commerce City, Colorado. The SRU produces 10 tons per day of elemental sulfur (molten) from sour refinery gases. The thermal reaction section converts hydrogen sulfide (H₂S) to Sulfur Dioxide (SO₂) at a temperature of 2,300°F.

The conversion to elemental sulfur is based on the following chemical reaction:



Product sulfur is condensed and sold as a by-product from crude oil refining. Process controls and gas analyzers were incorporated into a Honeywell 3000 distributed control system. Ceramics were specified and purchased from Coors for high-temperature applications.

In order to fit larger and additional equipment into an existing plot space, equipment was arranged vertically in steel structures. All mechanical and electrical construction was completed within a four-week shutdown period.

Merrick & Company provided:

- Detailed engineering
- Design
- Procurement
- Contractor bidding
- Construction management
- Startup support for the new SRU

