



**PROJECT HIGHLIGHTS**

Murphy Company teamed up with Rentech Inc to provide mechanical labor to build their PDU. Starting off with demolition of an old tank farm and piping systems (site was part of the Conoco Refinery), this project quickly grew in size to accommodate a brand new Process Development Unit to become the only facility to produce ultra clean synthetic fuels to serve as a testing ground for various types of feedstock, such as natural gas, coal and biomass. Rentech Inc. held the roles of owner, engineer, and construction manager. As construction of this plant progressed, many items were changing to accommodate newer technology and processes.

Our work included not only all of the process and utility piping, but setting all of the equipment. This equipment consisted of: Zeton Skids (FT Reactor and Upgrade Skid – Fischer Tropsch Technology), Steam Methane Reformer (SMR), Gasifier, Fuel Gas Skid, and multiple other skids that was part of Rentech's proprietary design. We also piped up and set 10 new storage tanks, retrofitted 4 existing tanks, and built a

new truck load out facility. With very high standards of Quality Control, we were able to perform some code work on some vessels that changed due to design changes, as well as built a new pressure vessel in our fabrication shop. Our manpower peaked at 100 craft persons on site and 30 pipe fitters in our fabrication shop, at which 5 months of the project were worked 7 days a week, 10 hours a day to meet Rentech's accelerated schedule. We also provided labor to go out to Delaware to tear down a Steam Methane Reformer, piping and a building, load it onto numerous trucks, and shipped it out to the site where we re-erected it.

The PDU is designed to produce approximately 10 barrels per day of ultra-clean diesel, aviation fuels, naphtha and specialty waxes and chemicals. The PDU will serve as a testing ground for feedstock such as natural gas, coal and biomass and as an end-to-end demonstration center for the production process of synthetic fuels. Since we finished construction, thousands of gallons of various grade Jet and Diesel Fuels have been sold to the United States Air Force for testing.

**CLIENT**

Rentech Inc.

**BUILDING TYPE**

Process Development Unit (PDU)

**PROJECT SIZE**

Total Project	80 million
Murphy Component	19.9 million

**CONTRACT TYPE**

Time & Material

**PROJECT DURATION**

18 months

**MURPHY TEAM**

Project Manager	Vince Rogers
Superintendent	Dale Camblin
Piping GF	Rick Chapin
Piping GF	Steve Munsterman

**MURPHY COMPANY SCOPE OF WORK**

Piping & Equipment Installation

**PROJECT TEAM**

Engineer	Rentech Inc.
Mechanical	Murphy Co.
Electrical	Piper Electric

**DETAILS**

- Only Operational Synthetic Fuel Facility in the United States.
- 18 month project schedule beginning in March 2006 concluding August 2008
- Maximum Murphy crew size on the job was 100 craftsman