

770,000 SCFH HYDROGEN PLANT

Capacity:

770,000 SCFH of 96 % hydrogen
(21,800 Nm³/hr)
11 ton/hr carbon dioxide
10 ton/hr super heat steam

Year built:

1982

Year shut down:

1995

Feedstock:

Natural gas and/or refinery fuel gas

Technology:

Foster Wheeler
Union Carbide

Major Equipment:

- Reformer
- CO₂ stripper
- Methanator
- Feed gas compressors
- Absorber
- High temp shift reactor
- Low temp shift reactor
- Zinc oxide drums



BRIEF PLANT DESCRIPTION

This hydrogen plant uses natural gas and refinery fuel gas to produce 96% hydrogen that is consumed by hydrocracker and hydrotreater of oil refineries. The plant is a steam/methane reformer with high and low temperature shift reactors. There are two zinc oxide beds for removal of trace sulfur compounds. A hydrotreating catalyst converts sulfur compounds to hydrogen sulfide and zinc oxide removes the hydrogen sulfide. Methane and other light hydrocarbons react with water to produce hydrogen and carbon monoxide. The HTS reactor increases the shift rate and the LTS reactor promotes high equilibrium conversion.

The plant had several major upgrades from 1990 to 1995.

CONTACT US FOR MORE DETAILS

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