

stripper and enters the regenerator, where carbon is removed by combustion with air. The air is supplied by an Elliott steam-turbine-driven multistage centrifugal compressor. Flue gas resulting from combustion in the regenerator passes through

cyclones in the upper part of the vessel which remove entrained catalyst particles and return them to the catalyst bed.

A vapor recovery unit accomplishes the separation of the products produced in the cat-cracking unit. Feed

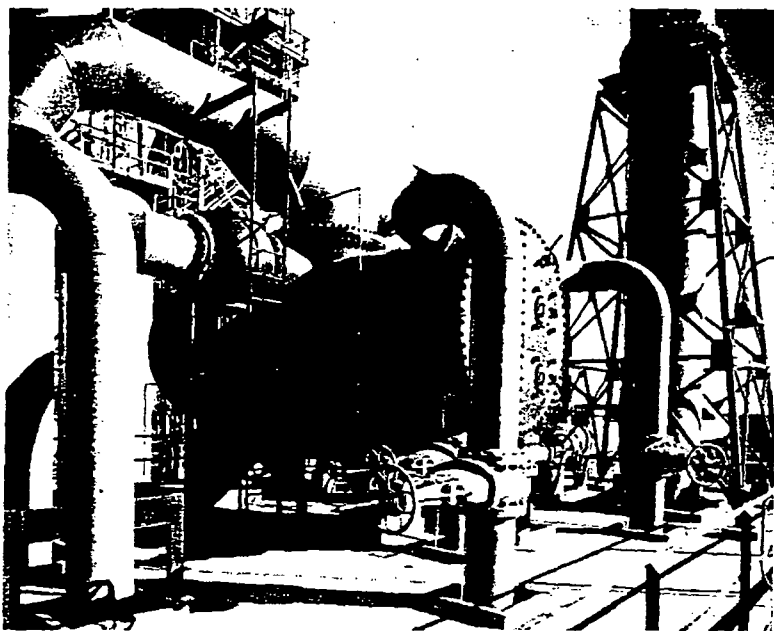
to the unit is the unstable gas and gas from the overhead accumulator of the main fractionator cat-cracking unit. The end products of the separation performed in the unit are debutanized gasoline, ethane, propane, and dry gas.

Wet gas feed is compressed (by a wet gas compressor) and recombined with both the bottoms from the absorber and the vapors from the stripper. Vapors from the condenser drum are fed to the absorber, which utilizes unstable gasoline as the absorption medium.

Steam requirements are met by a plant consisting of three boilers, with a 75,000 lb per hr capacity. Many Elliott steam turbines and various pumps around the refinery and Elliott-Lagonda tube cleaners are used on stills and heat exchange equipment.

The complete plant was engineered and constructed by Luminus Company of New York in 18 months. The design is such that the plant can be operated with fewer than 200 employees whereas plants of this kind sometimes require 350 employees.

Suntide Refining Company is an affiliate of Sunray Oil Corporation, Tulsa.



Here is a close-up view of the Elliott 10,000-sq ft surface condenser installation.

EJECTORS SERVE SUGAR PANS

THE magazine *Sugar* recently wrote about a new sugar factory in Columbia, South America. Known as Central Manuelita, it began operation in February 1953. Actually, the company goes back 90 years, and in 1901 installed the first vacuum pan sugar factory in Columbia.

In the new factory Elliott two-stage steam jet ejectors, one of which is illustrated, serve the vacuum pans which work on a steam pressure up to 15 psig, this steam being a mixture of vapors from the pre-evaporator and exhaust from the mill turbines. The evaporator and each pan are individually equipped with a counter-current condenser served by an Elliott two-stage steam jet ejector. Operators like ejectors better than vacuum pumps, repairs and maintenance have been practically eliminated, and with ejectors on individual units, starting and stopping of other units cause no fluctuation trouble.

