

Acetylene-Vinyl Projects Under Way in the Southwest

Features	DIAMOND ALKALI at Deer Park, Tex.	MONOCHEM, INC., at Geismar, La.	TENNECO CHEMICAL near Houston, Tex.
ACETYLENE UNIT			
Capacity	40 million lbs./year	80 million lbs./year	100 million lbs./year
Process	Montecatini	Badische Anilin	Soc. Belge de L'Azote
Contractor	C. F. Braun	Chemical Construction	M. W. Kellogg
VINYL CHLORIDE UNIT			
Capacity	90* million lbs./year	150 million lbs./year	200 million lbs./year
Contractor	Scientific Design	United Engineers & Constr.	(to be designated later)
OTHER PRODUCTS AT SAME PLANT	Ammonia—100 tons/day	Oxygen (for own use)	Vinyl acetate, ammonia, and methanol—in "substantial quantities"
OTHER COMPANIES INVOLVED	Monsanto Chemical—to market the ammonia	Borden Chemical—to use acetylene and off-gas to produce vinyl acetate and methanol in adjacent plant; Borden and U.S. Rubber to share the vinyl output for their respective PVC plants.	Cary Chemicals—to buy much of vinyl output for production of PVC and PVAc resins
ONSTREAM DATE	Jan. 1962	May 1962	Fall 1962

Estimated by CW.

Three-Way Race for New Vinyl Capacity

Three big Southwest projects that together will increase U.S. vinyl chloride capacity by nearly one-third are racing into the home stretch this week with the letting of more contracts for major units. All three are integrated operations starting with production of acetylene by partial oxidation of methane from natural gas.

Diamond Alkali, which awarded its main contracts last fall, appears to be safely in the lead; it says construction is on schedule, should be completed by Jan. '62. Monochem—jointly owned by Borden Co. and U.S. Rubber—held groundbreaking ceremonies last April, may be ready for startup in about a year.

Site Work Started: Running third, but with the biggest project, is Tenneco Chemical, subsidiary of Tennessee Gas Transmission Co., which last week let the first two big contracts for its plant. M. W. Kellogg Co. (New York) will put up the acetylene unit, based on a process developed by Societe Belge de L'Azote (Liege). Bechtel Corp. (San Francisco) is already doing off-site work.

In addition, Tenneco contracted with Hydrocarbon Research (New York) for oxygen needed in the acetylene unit. HR will construct an air-separation plant on the Tenneco site for this purpose. It will also supply nitrogen for Tenneco's ammonia unit and "other uses" not yet specified.

Tenneco says it will award contracts later for construction of four other principal units of its big petrochemical complex. The company puts the capacity of the vinyl chloride monomer unit at 200 million lbs./year, says the other units will turn out "substantial quantities" of vinyl acetate monomer, ammonia and methanol.

Financing a Customer: Much of the production of both vinyl monomers will be shipped to Cary Chemicals (East Brunswick, N.J.), for production of polymer and copolymer resins in Cary plants at Flemington, N.J., "and possibly two other sites," according to Cary, which is planning a \$13.5-million expansion program (CW, Feb. 11, p. 23). Projected aggregate capacity of Cary's three resins plants: 150 million lbs./year. Tenneco has

invested \$4 million in Cary, agreed to invest up to \$3 million more.

Salt Base: Arrangements for the Monochem project reveal a new growth spurt by Morton Chemical, subsidiary of Morton Salt Co. (Chicago). Morton Chemical—headed by 49-year-old Joseph E. Rich, formerly vice-president of Simoniz Co.—will build at Geismar a plant to supply anhydrous hydrogen chloride needed for Monochem's vinyl chloride unit.

Feedstock for its anhydrous hydrogen chloride unit will be muriatic (hydrochloric) acid produced by Morton Chemical at Weeks Island, La., and barged to Geismar via the Intra-coastal Waterway and the Mississippi River. Last November, Morton Chemical was granted a \$3.5-million Louisiana state tax exemption for expanded plant facilities to make muriatic acid and sodium sulfate (salt cake).

Together with the related facilities, the three big acetylene-vinyl projects will cost well over \$100 million, turn out 450 million lbs./year of vinyl chloride, possibly 100 million lbs./year of vinyl acetate.



Polymer's Rowzee: Tougher for rubber.

Which Way for Polymer Corp?

This week, a special committee of the Canadian Cabinet is weighing the feasibility of selling the government-owned Polymer Corp. Ltd. to private interests. The war baby that has grown to the point where it produces 10% of the non-Communist world's synthetic rubber is now at a crucial point in its history. About 60-70% of its output goes to export markets; a just-beginning surge in foreign synthetic rubber production could dry up these export markets within a few years.

Polymer President E. Ralph Bowzee intends to fight back by getting in on the overseas plant building boom himself. He has mapped out a \$30-million expansion program in Europe. This is more than the company can finance out of retained earnings (usually \$6-7 million a year), so it must go either to the government or the money market.

The Cabinet committee decided this was an appropriate time to consider again whether Polymer was outgrowing government ownership and should be sold into private hands. Recogniz-

ing the competitive situation, however, it meanwhile gave approval to the expansions.

Aside from not wanting to lose a good moneymaker—the investment was long ago paid off and the company has returned to the government \$3-\$4 million/year in addition to taxes—the government could get into political trouble trying to dispose of Polymer. The most logical purchasers are subsidiaries of foreign companies and Canadian officials have had to assure Parliament that control of the company will remain in the country.

Most eligible suitors:

Ventures Ltd., a mining investment group, has made the only firm offer, was rejected last year on a bid of \$75 million. Its chairman, J. D. Barrington, is a former president of Polymer.

Dow Chemical of Canada has its plant next door to Polymer, in Sarnia, Ont., uses similar raw materials, overlaps in products (styrene, latexes).

Goodyear, Goodrich, Firestone and Dominion Rubber are the four companies that ran Polymer's copolymer unit during the war.

Imperial Oil, subsidiary of Jersey Standard, is Polymer's major supplier, operated the major part of the Polymer plant during the war. It could offer strong financial support, a worldwide marketing and research organization.

Shawinigan Chemical has studied the possibility of purchasing Polymer, but has not made an actual offer. Shawinigan has solid Canadian financial strength, is involved in U.S. and foreign markets.

Worldly Wise: Noted for advanced production techniques and shrewd overseas marketing, Polymer Corp. has made the best of a difficult situation. The Canadian market could consume only about half of the company's 40,000-long tons/year production—it actually takes only 30-40%. Knowing that its Canadian customers (largely subsidiaries of U.S. tire companies that have excess SBR capacity of their own at home) might retaliate if Polymer entered the U.S. market in any substantial way, the company has kept exports to the U.S. to 5-10% of its production, hasn't sold aggressively here.

In contrast, the company's selling in other foreign markets has been very aggressive. It was first on the spot in

the European market, has set up an extensive distributor organization run by local nationals. The sales group emphasizes technical service in all languages (including Russian and Chinese; about 8,000 tons were sold last year in Russia and China) and dependability of deliveries. The company considers this last point so important that foreign orders get priority in shipments.

Western world synthetic rubber capacity is expected to increase more than 30% by '63, from 2.04 million tons to at least 2.7 million tons/year. Most of this will be in Polymer's major markets outside of North America. So far, the combination of new foreign producers and export competition from U.S. producers has served mainly to undermine price, and Polymer has been able to meet the competition.

The Sarnia operation is regarded as one of the most highly integrated and most efficient producers in the world, and the company boasts that it can match any of the nonintegrated U.S. producers in both production per unit of investment and output per unit of manpower, despite higher fuel and raw-material costs.

But Polymer knows that the export markets for North American synthetic rubber are bound to dwindle; and it wants to move fast to establish its own overseas plants. It is now building a \$12-million specialty rubbers (high-styrene and nitrile types) plant in France. A \$15-20-million butyl rubber plant, scheduled for Britain, may now go elsewhere, possibly Canada. Clarification of the geographic scope of Jersey Standard patents will decide where.

Other expansion projects now under way include construction of a 20,000-tons/year polybutadiene plant and a black-masterbatch line, both at Sarnia.

Polymer officials plan to push growth, regardless of whether they remain under government control or not. They point out that the government hasn't interfered to any appreciable degree so far, and for all practical purposes, Polymer operates like a private company. One area in which the company is moving ahead: use of lignin-SBR masterbatch (from domestic materials) to substitute for imported carbon black-natural rubber in truck tires.