

COLUMBIA-SOUTHERN CHEMICAL CORPORATION

SUBSIDIARY OF PITTSBURGH PLATE GLASS COMPANY

CABLE ADDRESS "PITTCHEM"

N. J. EHLERS
ASSISTANT TECHNICAL DIRECTOR

ONE GATEWAY CENTER
PITTSBURGH 22, PA.
ATLANTIC 1-5606

March 18, 1957

Manufacturing Chemists' Association, Inc.
1625 Eye Street, N. W.
Washington 6, D. C.

Gentlemen:

Please send me the following two items which are mentioned in
your STATE LEGISLATIVE BULLETIN NO. 6, dated March 8, 1957, Page 15:

Call
OHIO

Sent 3/21/57
H - 257 #5 WATER POLLUTION

S - 5 #3 POLLUTION

Please send these to my attention, and also advise me if there
is a charge.

Very truly yours,


N. J. Ehlers

NJE:ma

CMA 174925

SPECIALTIES SURGE FOR PPG'S CHEMICALS GROUP

A big push for international growth

During the past 12 months, PPG Industries' (Pittsburgh) chemicals group launched a growth strategy that is giving its specialties portfolio a major boost. The company has increased the international reach of its silicas, surfactants, and Transitions Optical eyewear venture, and is expanding its fine chemicals operation.

PPG has further developments in the pipeline. Its capital spending this year is targeted at \$100 million, similar to last year, with additional funds available for acquisitions, says Peter Heinze, group v.p./chemicals. Chlor-alkali and derivatives, still the biggest portion of PPG's \$1.15-billion/year chemical business, are having a rough ride because caustic soda prices have plummeted. Still, PPG is optimistic that prices will bottom out during first-half 1994 and has its eye on some moves for that business too.

SHIFTING PORTFOLIO. The push is in line with PPG's strategy since the mid-1980s to shift its chemicals portfolio from being primarily a commodity chlor-alkali business to one with 50% of revenues derived from specialties by the late 1990s. From 17% of sales in 1986, when PPG acquired surfactants maker Maser, specialties now account for 35%—about \$450 million—of sales.

The chemical group's total operating income dropped from \$185 million in 1992 to \$138 million in 1993; sales rose 3%. However, specialty sales grew 23% and profits jumped 50%, says Heinze.

The second dimension to Heinze's growth strategy is to boost international business. "More than 90% of [PPG's chemicals business] is domestic," says 51-year-old Heinze, who came to PPG 18 months ago, after 23 years with BASF, 12 of them in the U.S. "We want to have 25%-30% outside the U.S."

"There's plenty there in the five or six specialty areas to grow the business," concurs Harvey Stober, analyst

with Dean Witter Reynolds, "with lots of room to grow geographically." In particular, Stober says, PPG is "quite weak in Europe."

Chemicals represented 20% of PPG's total 1993 sales and 19% of operating income, with coatings and resins (40% of sales and 56% of operating income) and glass (38% and 27%, respectively) making up the balance.

In precipitated silicas, with sales a little over \$100 million/year, PPG's moves have been positioning it for "a couple of key markets," says Donald Bogus, v.p./specialty chemicals. First, there is substantial silica demand growth in the Far East, running at more

than 10%/year. Major end uses are in reinforcing elastomers for footwear and mechanical goods, such as belts and hoses, and as a tire builder. PPG is keying on China and Indonesia. Its main competitors are Degussa, Rhône-Poulenc, and J.M. Huber.

To meet this demand growth, PPG has made three moves in the region during the past year, building on its existing positions in Taiwan,

Thailand, and China. The company raised its stake in its PPG-Nanchang Chemical venture in Nanchang City, Jiangxi province, China, and expanded capacity to 15,000 m.t./year. Last December, it announced a multimillion-dollar expansion at PPG Siam Silica, its precipitated silicas joint venture in Thailand's Rayong province. In January, it formalized a second Chinese venture, PPG-Liangji Chemical Industrial, originally announced last summer, for a 5,000-m.t./year precipitated silica plant at Liangyungang, northern Jiangsu province, in northeast China, scheduled to

come onstream in late 1994.

The second thrust in PPG's silicas strategy is aimed at capitalizing on its leading position supplying silica for its fast-growing use as a membrane separator in batteries. This was consolidated by its acquisition a year ago of the former Katalistiks catalyst plant at Delfzijl, the Netherlands, to be converted to give PPG its first European silicas plant. Besides silicas for battery separators, in which PPG competes with Degussa and Akzo, the plant will provide silicas for the company's coatings operations.

PPG has also announced it is studying production at its Lake Charles, LA site of a new proprietary silica to improve tire performance, but Bogus says more testing is required by the tire and auto companies before investment goes ahead. Apart from a second-stage expansion at Delfzijl to increase capacity from 15,000 m.t./year to 25,000 m.t./year by April 1995, "we're unlikely to announce additional sil-

cas moves in 1994," says Bogus. "We're pretty busy."

The surfactants business, with sales of \$125 million/year, is also being positioned for fast growth even by its own standards, having racked up 15%-20%/year growth in recent years. In the past six weeks, PPG has announced plans to build a 5,000-m.t./year alkoxylation unit at Antwerp and to acquire Nalco's Freeport, TX ethoxylation unit. At Antwerp, PPG will make ethoxylated polyols for the company's coatings operations and ethoxylates for its surfactants operations in Europe, based on its 1990 acquisition of the French surfactants maker Ets. Robert Ouvrie. The 30-million lbs/year Freeport unit will supply Nalco's new oil field chemicals venture with Exxon and will be expanded to supply the needs of PPG's surfactants business.

GLOBAL LEADER. PPG's push is in "soft detergent compounds," says Bogus, based on sodium and ammonium acyl isethionates, where he claims PPG is the global leader in technology and supply. PPG also offers a "lot of niche services in ethoxylates and in the emerging science of propoxylates," he says. This capability is based at Gurnee, IL, its principal surfactants site, and will be installed at Freeport and, eventually, Antwerp.

In fine chemicals, also with sales over \$100 million/year, "we've targeted to make a significant acquisition in



Heinze: More outside U.S.



Bogus: 'We're pretty busy.'

1994," says Bogus, either in the U.S. or Europe. Based on its La Porte, TX site, PPG is the biggest custom phosgenator in the U.S. The new acquisition will be in another technology, to broaden PPG's base.

Meanwhile, a multimillion-dollar investment is under way to install a multipurpose capacity expansion. PPG continues to find "profitable opportunities in specific niches in pharmaceutical intermediates," Bogus says. Making intermediates involves "a lot of liability exposures, so there's an opportunity for a very respectable company that knows how to handle hazardous chemicals. The pharmaceutical companies are looking to the big companies [operating in fine chemicals] to support them with these kinds of services," he adds. Bogus sees a positive impact on the business from any increase in generics sales because of health care reform. That will favor lower-cost manufacturing, which PPG is positioned to provide.

PPG's CR-39 special polycarbonate optical resin monomers business is included in its fine chemicals operations. Production is at Barberton, OH and Chiba, Japan—through PPG's Asahi-Penn venture—and the main competitor is Akzo. An expansion at Barberton in 1991 has created enough capacity to cover demand growth—running at 7%/year—during the next three years, Bogus says.

SOCCER STIMULUS. PPG's Transitions Optical (Pinellas Park, FL) eyewear venture with France's Essilor has grown out of PPG's optical resins know-how. Starting out in 1991, the venture's sales have rocketed to about \$100 million/year, with PPG holding 51% of the venture. A European production plant at Tuam, Ireland, will start up this spring, and an Asian production site is being sought with the prospect of starting operations in early 1995. Transitions would next consider a U.S. West Coast plant. PPG is looking for a fillip to sales from having bought a soccer World Cup sponsorship for Transitions and the franchise as "official eyewear" for the series taking place in the U.S. this summer.

The final \$100-million/year segment of PPG's specialties business is an assortment—comprising calcium hypochlorite for water treatment, a \$25-million/year business in plastic additives, and Teslin synthetic paper. In addition, the chemicals group has at least two new product developments under way: deinking chemicals (an outgrowth of its surfactants business) and photochromic dyes (an outgrowth of the photochromic optical resins business).

Still the biggest part of the chemicals portfolio, PPG's chlor-alkali business, the third biggest in the U.S. behind Dow Chemical and OxyChem, has been run as a cash generator to support expansion in specialties. It has been hit hard by the slump in caustic, but it remains a strong low-cost operation, showing signs of successfully dealing with the changing face of chlorine demand. Its electrochemical unit output has increased each year since 1986. PPG is not experiencing "a reduction in chlorine, but a shifting—primarily to the Gulf Coast," says Rae Burton, v.p./chlor-alkali and derivatives, and to chlorine outlets that are growing—notably vinyl chloride monomer (VCM) and titanium dioxide. Burton expects to have a project to further expand VCM by year end.

PPG's biggest chlor-alkali plant is well placed at Lake Charles, with 3,600 tons/day capacity and downstream units for ethylene dichloride, VCM, chlorinated solvents, ethyl chloride, and vinylidene chloride monomer. PPG also operates a 1,100-tons/day unit at Natrium, WV, which is a low-cost producer in the region and has a good baseload demand supplying Miles's adjacent site. A 220-tons/day membrane unit at Beauharnois, PQ, using low-cost Hydro Quebec power, along with a sodium chlorate unit, completes its North American lineup.

Burton is aiming for PPG to maintain a strong position in what will remain of the chlorinated solvents market following chlorofluorocarbons phaseout. PPG has proprietary technology that can produce perchloroethylene and trichloroethylene on the same unit, in contrast to most of its competitors, which operate perchloroethylene units designed to coproduce carbon tetrachloride, which is being phased out. Burton is targeting sales to producers of hydrofluorocarbon-134a: DuPont uses perchloroethylene feedstock, while ICI and Elf Atochem use trichloroethylene.

As for 1,1,1-trichloroethane, scheduled for phaseout in emissive uses in 1995, Burton aims to hold on to sales of the product for nonemissive uses, primarily supplying the producers of hydrochlorofluorocarbon-141 and -142. "We see ourselves as a real player in C₂ feedstocks for nonozone depleting fluorocarbons," he says, and expects to see the decline in chlorinated solvents demand to bottom out in 1995.

As with specialties, PPG is looking to boost its overseas presence in chlor-alkali. Burton expects to have a project by the fall—probably in China—to complement PPG's single overseas chlor-alkali stake in Taiwan.

"We think having chlor-alkali and specialties in one portfolio is a unique combination helping our success," says Heinze. He has identified as two of PPG's core competencies its experience in low-cost operations and customer service, both best exemplified by PPG's chlor-alkali business. He is proud of the chlor-alkali operation winning the 1992 International Customer Service Association award. "We outperform our competition by huge



Burton: Chlorine shift.

amounts in regard to response to customer needs and accuracy of information," he says. "That's a four- to five-year learning process. We've taken it from chlor-alkali and extended it to the specialties business."

FAIR PRICE. It is the same with low-cost manufacturing. "To be a low-cost producer is the entry card to being in business," says Heinze. "It can apply equally to chlor-alkali as to specialties. Whereas in some specialty companies you hear they're not worried about costs but about being fast, and think they can afford higher cost because of value added they are giving. You should only charge the customer what will enable him to grow the business long term." Heinze identifies a further area outside chemical process technology where PPG seeks competitive advantage—information technology. His requirement: It should be adaptable to having an acquisition "plugged into it." PPG's new system developed with EDS will be used initially in its surfactants business.

One Heinze goal this year is to acquire another technology to complement PPG's existing portfolio; the company had been a final bidder for Calgon Water Treatment last year. He is also looking for double-digit sales and profits growth.

From his executive suite high in the PPG building, Heinze likes to point to the confluence of the Monongahela and Allegheny rivers, which form the Ohio, to illustrate his philosophy. One tributary is knowledge of the customer, he says, the other is PPG's operating excellence, which combine to achieve PPG's goal of customer satisfaction.

DAVID HUNTER in Pittsburgh