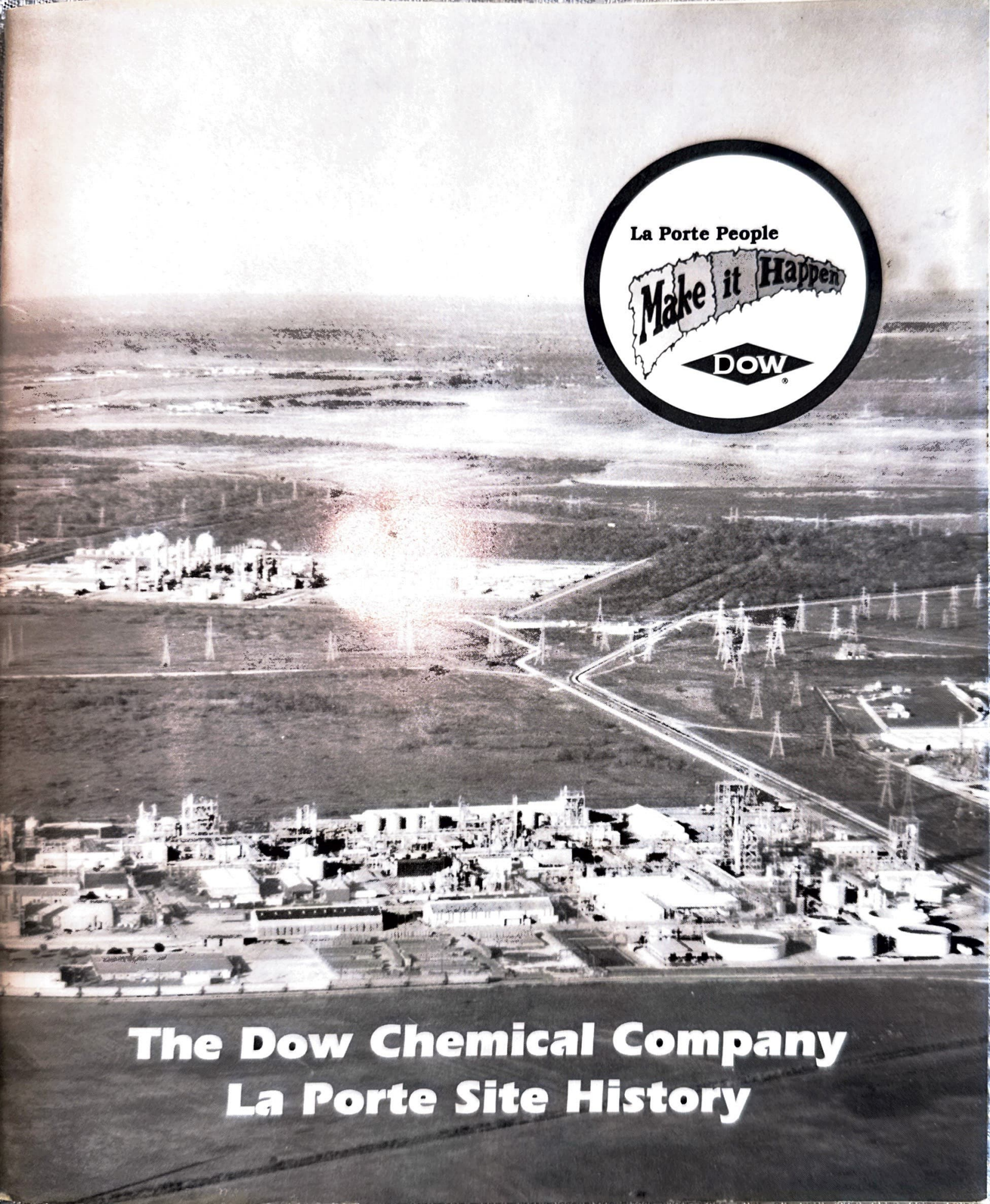
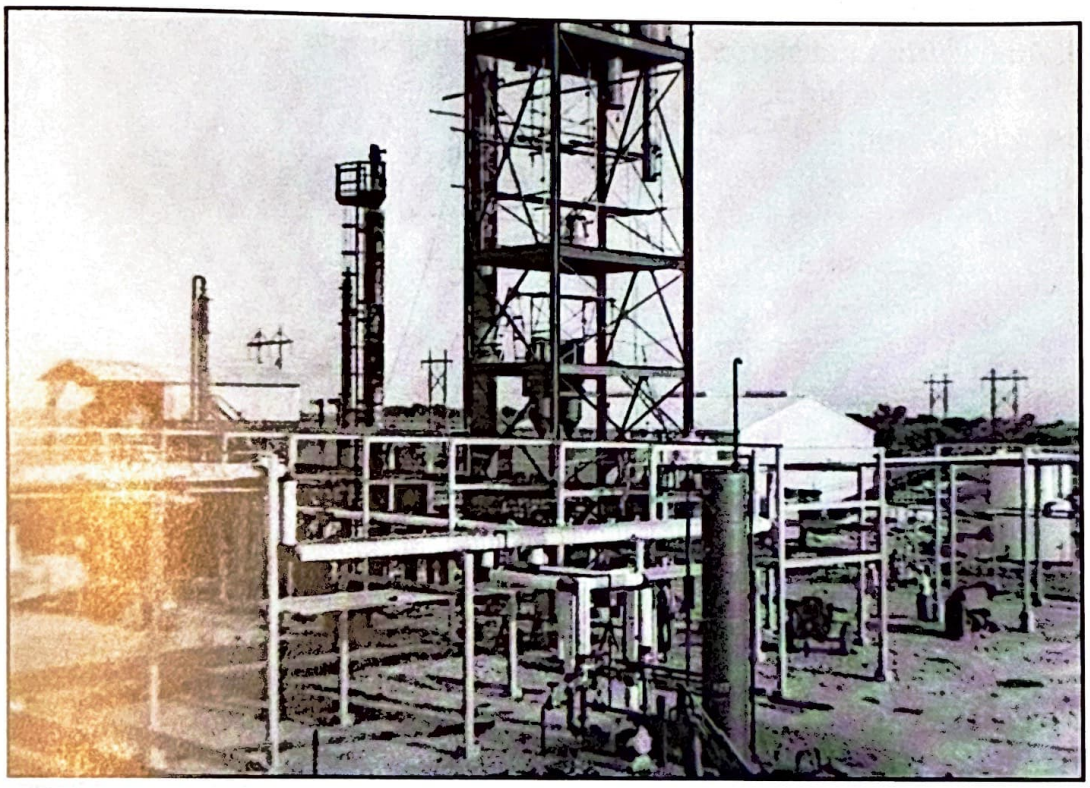


The Dow Chemical Company
La Porte Site History



The LaPorte site, A-Plant in 1960

The Dow Chemical Company - La Porte Site History

Carwin - The Beginning

The history of the Dow La Porte site begins with the Carwin Chemical Company of North Haven, Connecticut. Carwin was a small manufacturer of specialty amines and isocyanates, raw materials for pharmaceuticals, agricultural chemicals, and an emerging polyurethane (PU) industry. As the market for these products grew, the existing batch reactors at the North Haven plant could no longer keep up with the demand.

In late 1959, John Curtiss, a Carwin scientist at the North Haven Pilot plant, was asked by his boss, Adnan Sayigh, the "father of Papi", to develop a new, continuous process for making this proprietary polymeric diisocyanate. Meanwhile, Carl VanWinckel, the CEO of Carwin decided that a new plant site, closer to raw material suppliers and more remote from residential areas, was needed. After considerable searching, he purchased 34 acres of industrial terrain off the Strang RR siding in La Porte. He also hired two engineers, Jerry Mongiello and Bob Schmidt, to work with the PONA Engineering Co. of Houston to scale-up John Curtiss' laboratory work into a full-sized production plant

Ground was broken for A-Plant, a 5 MM lb/yr isocyanate unit, in February of 1960. Six new employees: Frank Ahern, Dick Davidson, Mike Seich, Ron Harmer, Don Masden and Bob Byars were hired to oversee the construction of the plant and the operation training.

By April 1960, John Curtiss transferred to La Porte, set-up the first QC Lab and hired Bart Olmsted, the first QC Lab technician. A-plant was brought on stream in October 1960 with the help of two new Mundy contractors, Bill Dobbins and Bob McCarty. The new plant primarily produced BuNCO (n-butyl isocyanate), Todi and Papi.


John Curtiss

Jack Thomas was hired as the first La Porte Plant Manager, in November of 1960. By this time, demand from the pharmaceutical industry for specialty isocyanates, and from the fashion and insulation markets for MDI products was growing at such a rate that A-Plant could not keep up with sales. As a result, a number of new folks were hired, and in late 1961, engineering began on B-plant, a 25 MM lb/yr unit dedicated strictly to the production of Papi.

Growth and Globalization - The Upjohn Years 1962-1985

In 1962, the Upjohn Company of Kalamazoo, Michigan expressed an interest in acquiring Carwin Chemical in order to assure its supply of n-butyl isocyanate, a key ingredient in Upjohn's oral diabetes medication, Orinase. Negotiations for the acquisition were successfully concluded in late 1962.

"I was the first local person hired at the Carwin Co., La Porte Aug. 1, 1960. I helped set up the lab to analyze a strange bunch of organic chemicals called Isocyanates, which had never been made before by a continuous process ... The inability to remove water from the (Isocyanates production) process caused a corrosive product which ate away at the stainless steel pipe, valves and exchangers creating leaks and loss of product and solvents ... it was a daily event to run for your life ... There were many improvements made in the 31 years that I worked at the La Porte plant, but none were appreciated as much as when Dow came in and stopped all the spills, and installed a real safety program."

William T. (Bart) Olmsted
1960-1991

The urethane business was good to the La Porte Site. With the capital support of the Upjohn Company, B-Plant was completed and came on stream in May of 1963. Along with the construction and start-up came a number of new "key" employees. Among them were Gene Eike, Don Threlkeld, Al Nichols, Richard Stroud, Gene Krizak, Luke Standefer, John Cheshire, Ken White, Bob Corbin, Bernie Garrett, Dick Duncan, Warren Rabourn, Dave Glassock, and H.D. Leazer.

Early after the Upjohn aquisition, 1962. Can you find these La Porte pioneers?: Jack Thomas, Luke Standefer, Mike Seich, Dick Duncan, Gene Eike, Don Threlkeld, Frank Ahern, Carl Van Winkel, Bob McCarthy, Don Masden, John Curtiss, Jerry Mongiello, Dick Davidson, John Dugas, and Fred Kniehl.

In an attempt to meet the rapidly growing market, B-Plant's capacity was expanded from the original 25 MM to 40 MM lb/yr by early 1966. This growth in production capacity meant the plant could not safely, or economically continue to depend on phosgene supplied in one-ton cylinders by SW Chemical in La Porte (now PPG). As a result, the site's first phosgene unit was built by Crawford and Russell in 1964. As the plant capacity grew, so did the number of employees.

"I was hired just after Upjohn purchased the plant - there were about twenty-one employees at the plant at that time. I would like to mention the great contribution by John N. Curtiss and Dr. Warren J. Rabourn in providing the knowledge of the chemistry of the plant process."

Luke P. Standefer, Jr.
1962-1990

Jack Thomas

By late 1964, it was evident that Papi demand would continue to grow faster than the available capacity. In early 1965, Fish Engineering was contracted to design and build

Gene Eike

K-Plant, a new 50 MM lb/yr. unit. K-Plant came on stream in the fall of 1966. This start-up was accompanied by the hiring of a number of new personnel including Nick Watson, Joe Sease, Richard Cannon, Dave Woodall, Bernie Funk, Frank Spann, and Jim Hajek.

"The 'Good Old" days weren't really that good ... a group of young, inexperienced people working in an area they knew very little about. We were a close group and the good Lord must have really taken a liking to us and watched over us. It was a fast 31 years."

Frank Neuman

1963 - 1994

A small polyols plant and the rigid bun foam line were built to compliment the Papi expansion and offer customers a broader product mix. Rapid growth of Spandex fibers based on pure MDI led to the construction of a pure MDI unit in A-Plant. By 1966, La Porte employment was just over 100.

A Process/product R&D group was established early in 1967 to develop continuous processes for Papa and pure MDI, to improve product quality, develop MDI derivatives (Isonate 143L and prepolymers), and to address the needs of a growing specialty isocyanate market (Bunco, Phenco, and others). A new R&D/Quality Control building was completed to house these groups in 1968. Several new technical folks were hired to assist in these efforts. Among them were Howard Steele, Einar Goerland, Bill Harrison , Rick Hatfield, Dave Wilson, and Mike Dillon. Another key project of the time was the licensing of Papi Plant Process technology to VEB Schwarzheide, in East Germany.

Don Threlkeld

Gene Eike was named La Porte Plant Manager in 1971. After the economic slowdown of the late 1960's, the early 1970's presented many new growth opportunities. The development of pure MDI-based elastomers led to a wide range of new applications. New uses were also found for high-functionality polymeric MDI as a raw material for insulation sheathing in the construction industry. These new markets rapidly used up available capacity. In 1970, K-Plant was debottlenecked to 70 MM lb/yr and in-house engineering began for a new 85 MM lb/yr polymeric unit, L-Plant.

"The thing that I remember most vividly was the intense drive to make the plant a success ... no one could discount the intensity of all of those who worked for Carwin or for Upjohn in the early days ... there was a camaraderie similar to that held by those who served together. There was almost heroism of those young guys who worked in the plant, who are now those old guys who gather at retirement parties."

Dick Duncan

1963-1994

Robin Grieve

Overseas markets for La Porte products, especially pure MDI for new European fashion and shoe trends, were growing so rapidly that a new, continuous MDI unit was designed by La Porte Process Engineering for construction in Delfzijl, The Netherlands. La Porte folks led the team which brought this unit on-stream in late 1972.

The new L-Plant came on stream just in time to supply the critical 390 HOP feedstock for Delfzijl. A number of new employees were hired to staff this new unit. Among them were Jerry Stamman, Rich Ryan and Ron Dutcher. To meet the growing demand from the automotive sector for Pellethane TPU elastomer, the Pellethane unit was built and started-up in 1972. By 1974 this market had grown so large that a second line had to be installed. Again, additional operating and support folks were hired (Nirad Shah, Cliff Gaddis, Steve Lowenkron, Tom Dye, Bill Eneks).

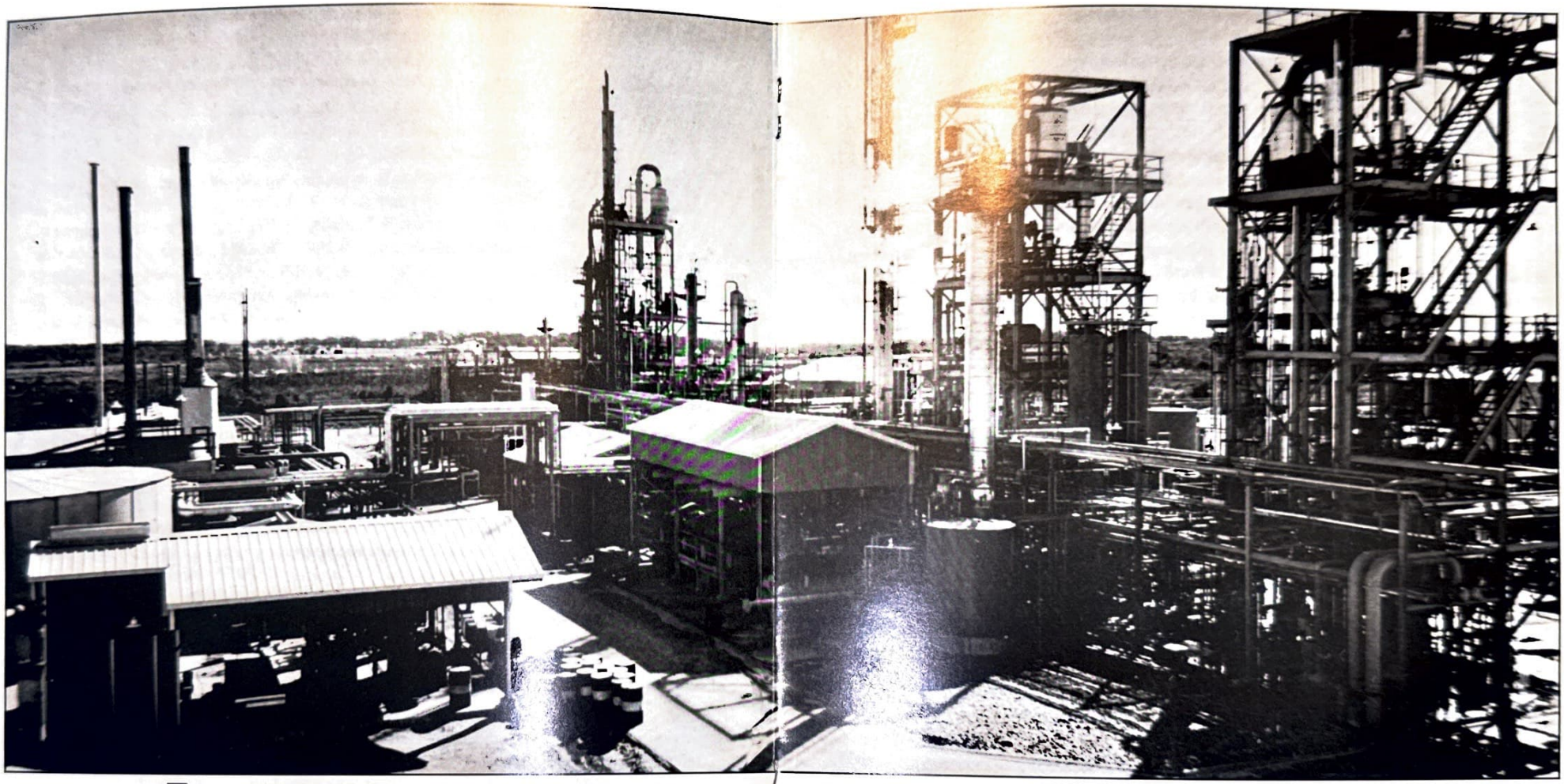
As the Polymer Chemicals business became global, La Porte became world headquarters for both manufacturing and sales. The US and Latin America sales groups relocated to La Porte from Kalamazoo in 1974. Along with the growth of business came an increasing customer demand for technical services and development help. A new Technical Services facility was built at La Porte and staffed in late 1974. The same year also brought the successful start-up of the Schwarzheide Papi plant. This start-up involved over 15 La Porte manufacturing, maintenance and lab personnel.

"When Bernie Funk and I were working on the Continuous Papa Pilot Plant, we had a lot of operators from A and K plants interested in our progress. One day an operator from K plant came by and asked how things were going. We had just made a good run and I proudly told him, 'We made a 60GPM run today.' 'I didn't know you make 60 gallons a minute of Papa with this stuff,' he said. Then I had to tell him, 'Well, our terms are a little bit different. That's grams per minute.' We both enjoyed a good laugh after that."

Jim Langley
1967-1987

The continuing global growth in demand for polymeric and pure MDI necessitated rapid capacity expansion at La Porte. L-Plant was debottlenecked to 100 MM lb/yr in 1974 and a new 100 MM lb/yr polymeric, M-Plant, was started-up in mid 1975. Included in M-Plant was a new pure MDI unit which came on stream in late 1975. Early 1976, saw the start-up of a new Isonate 143L unit in A-Plant.

Pacific area demand for pure MDI saw the formation of a new joint venture between Upjohn and Mitsubishi in Yokkaichi, Japan. A pure MDI batch still supplied with feed from La Porte was commissioned in 1976. In the same year - prompted by growing eastern of specialty isocyanates such as BuNCO were discontinued, the site embarked on an ambitious



A and B Plants in 1964

1960

1960: A-Plant

1962: Upjohn purchases Carwin Organic

1965

1963: B-Plant

1967: K-Plant

1970

1972: L-Plant (85MM pounds PAPI) PELLETHANE, Houston

1975

1975: M-Plant

1980

1985

1985: Dow aquires Upjohn Polymer Chemicals Division

1990

1991: A-Plant pure MDI

Gene Newton

European MDI demand, Papi plant technology was licensed to Russia.

MDI markets in Europe were growing rapidly in the mid to late 70's. Since the US market increasingly consumed La Porte production, the decision was made to build an MDI feedstock unit in Portugal, and Robin Grieve was named the Managing Director of the new ISOPOR joint venture. The La Porte Process Engineering group rose to the occasion again, and with an in-house team, designed a new world-scale polymeric plant for the Esterreja, site.

By 1980, additional European pure MDI capacity was desperately needed to meet growing insulation, automotive and fashion markets. Therefore, a new pure MDI unit, designed in La Porte, was constructed in Delfzijl and brought on-stream in 1981. La Porte continued to supply feedstock to Delfzijl until the new ISOPOR plant came on stream in 1982. This start-up was a success due to the many dedicated La Porte folks who were involved in the design, construction and start-up.

With Jack Thomas' retirement in 1982, Don Threlkeld was named Vice President of the Upjohn Polymer Chemical Division. In 1983 Robin Grieve returned to La Porte as the Plant Manger.

During the economic downturn of 1983-4, the Upjohn Board of Directors reached the conclusion that the rapidly growing Polymer Chemicals Division no longer met their growth strategy. As a result negotiations were begun with potential purchasers. By the end of April 1985, they had agreed on the most likely buyer: the Dow Chemical Company.

"The years I spent at The Upjohn Company, La Porte site from October, 1973 until July, 1985 were some of the happiest years of my life!"
Patricia Herbeck

The Dow Years - 1985 - Present

Gene Newton came to La Porte in mid-August 1985 as the first Dow Site Manager. He was charged with integrating the La Porte Site into the Dow Polyurethanes organization and Texas Operations. This transition involved many changes. Upjohn's former marketing and sales organizations were rationalized and relocated to Midland and the various regional sales offices. TS&D personnel were merged into the equivalent Freeport organizations.

A number of young technical people transferred to La Porte, including Greg Jarvie, Dave Bender, Bob Brubaker, Tom Freeman, and others. This group assisted in the task of implementing Dow safety and engineering standards.

Howard Higby came to the site in 1986 as the Production Manager, replacing Einar Goerland who joined the newly formed Global Isocyanates and Phosgene Technology Center.

Under Gene and Howard's leadership, numerous changes occurred at La Porte. After an early business rationalization in which the commercial sale of phosgene and the manufacture

Joe Hegyesi

expansion and betterment program. Among these projects were:

- the introduction of MOD V technology in 1987
- a new, state-of-the-art, above-ground, waste water treatment facility in 1988
- the L and M-Plant control room consolidation into L-63 in 1990
- the consolidation of the Phosgene/Utilities and Waste Water Treatment Plant control rooms in L-54 in 1988
- the construction of the new A-Plant control room and laboratory in L-64 in 1990
- the expansion of A-Plant prepolymer capacity in 1988
- TPU Process Research in L-88

All these projects required an increase in technical resources. From 1985 to 1990, the number of Dow employees at the site grew from approximately 435 to around 550.

"I started my career working for Dr. Warren Rabourn and finished it working for Gary Mistry. This, as well as being a part of the La Porte Family, made a tremendous impact upon my life. I will always remember the many friendships that I established."

John L. Brandon
1973 - 1994

In 1990, Joe Hegyesi was appointed La Porte Site Manager. The recession and resulting slump in the chemical industry had a strong negative effect on the site. Joe was charged with developing a strategy to turn this around. The following steps were taken to understand what needed to be done and to improve productivity:

- a "value-based management" (VBM) study was begun to analyze the Polyurethanes business and identify activities that would strengthen the site's position
- all QC and analytical operations were consolidated
- the consolidation of La Porte and Freeport PU operations began

Tommy Block

Over Joe's two-year tenure at La Porte, several significant projects were completed:

- M-Plant was debottlenecked to achieve world-scale capacity
- all Texas Operations PU manufacturing operations were consolidated under one manager
- A-Plant pure MDI unit was started up
- A joint Dow and Mitsubishi design team (DMKL) developed preliminary designs for a Pacific area Papi plant

- La Porte folks assisted the Stade Plant start-up

Tommy Block was named the La Porte Site Manager and North American Polyurethanes Manufacturing Manager early in 1993. He came to the site during difficult economic times. The result of the VBM study of the PU business indicated that La Porte's future depended on its ability to become the global, low cost producer of MDI. Under Tommy's leadership, a number of steps, some quite difficult, were taken to meet these goals:

- some departments were realigned along common work processes
- L and M-Plants were combined under a single leadership team
- the Columbus, Ohio Trymer Foam plant was closed and production was consolidated at La Porte
- Headcount was reduced

Other noteworthy events and projects, at La Porte included:

- the creation of the E-13 Emergency Operations Center
- the establishment of a La Porte college scholarship program for employee's children
- the start-up of the Yeocheon pure MDI plant, designed and assisted by the Polyurethanes Technology Center
- OSHA Star certification
- ISO 9002 registration of pure MDI and derivatives

In 1994, John Harrison was named La Porte site manager and North American Polyurethanes Manufacturing Process Leader. During John's first year:


John Harrison

- L-Plant was debottlenecked to world-scale capacity
- Dow's commitment to the polyurethanes industry was demonstrated by the announcement to build a world-scale TDI plant on the Texas Gulf coast
- new Sales and production records were set for all plants
- Howard Higby retired and was replaced by Kelton Thomson

Besides making site improvements, Dow U.S.A. La Porte has also taken an active role in community affairs. Dow led the effort to install the Community Awareness and Emergency Response "hotline" (CAER) to serve the La Porte-Deer Park area during emergency chemical releases and related emergencies. This program was initiated by the Chemical Manufacturers Association (CMA) in 1985 as response to the public concern about accidental chemical releases.

"The experience of being the first black woman, and the first woman, to work down in the plant as a technician was an experience that I shall never forget. It was not easy as you may know, but it was very rewarding for me knowing I paved the way for future women by proving that women could do the job."

Dazerine Scott 1974 - 1989

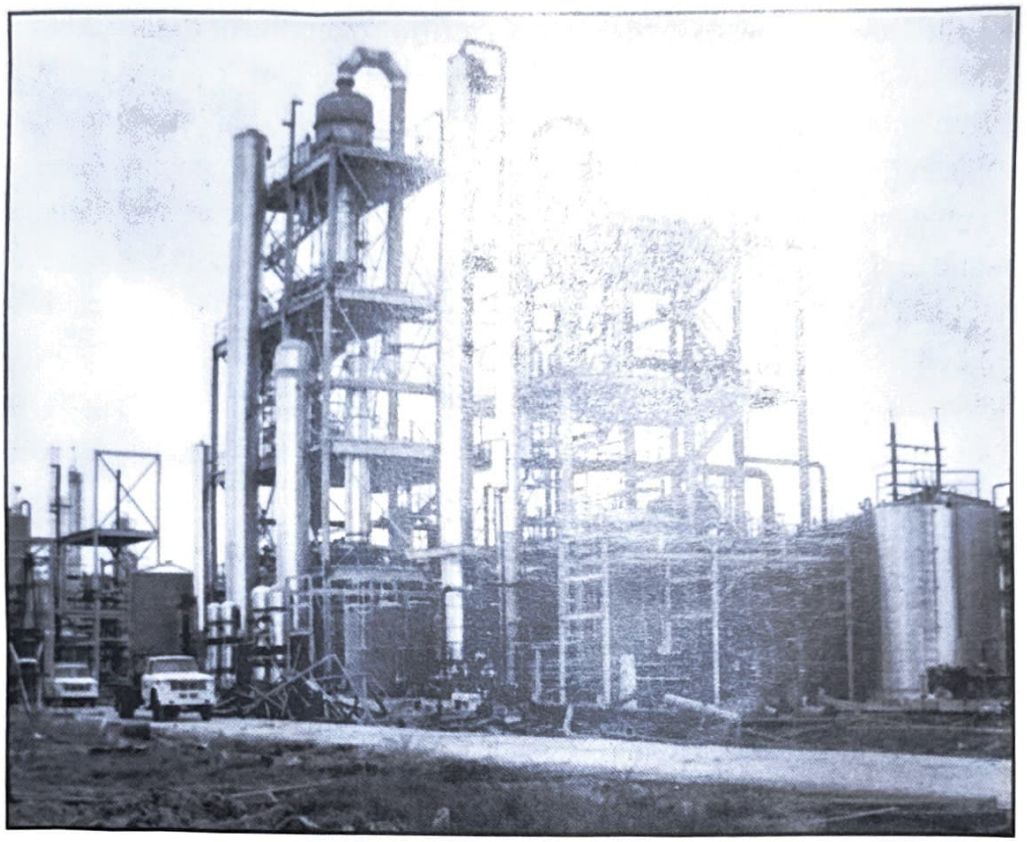
In 1989, the Dow Chemical Company made a firm commitment to the CMA "Responsible Care" program. This voluntary code "embodies the CAER program and places added emphasis on public outreach and dialogue." High value is placed on: "improving performance in health, safety, and environmental quality; responding to public concerns; assisting other companies to achieve optimum performance in these areas, and communicating with the public to report on progress." As part of this program, Dow U.S.A.-La Porte became the first plant in the La Porte area to form a Citizens Advisory Panel to facilitate communication between the site and the citizenry of La Porte. In addition, two Dow La Porte site managers have chaired the East Harris County Manufacturers Association, a group dedicated to the improvement of industry and community interaction. Through activities like these, the Dow U.S.A.-La Porte Plant affirms its responsibility as a caring neighbor and citizen of the La Porte community.

"My years at La Porte had many memorable moments: upgrading of the facilities, freeze of 1989, two hurricanes in one year, Phosgene releases, many new friends, boiler failures and finally solving those problems, golf matches, all those trips to Lake Jackson for meetings, seeing the site turn a profit on all products, not selling the TPU business, outlasting three site managers, and finally not having nightly wake-up calls. Retirement is great."

Howard Higby
1986-1994

"I've seen and worked from day one when the plant was an oversize pilot plant in ankle deep gumbo mud to the point when the rest of the world came to us to find out 'how to do it.' We saw some good times and some bad times, but the best part was helping to develop the process to the point where it is today."

Robert (Bob) Byars



L-Plant construction 1970

"Over the last 35 years, the La Porte polyurethane industry pioneers have built a strong tradition of success. These folks have positioned the site for continued success into the next century. Today it is up to all of us to achieve their vision: to make La Porte the low cost, global, benchmark production site for MDI. With our continued, active participation and commitment, this vision will be realized."

John Harrison
Oct. 1995

Thanks to all the people who shared their recollections, pictures and information. Special thanks to: John Curtiss, Jerry Mongiello, Dick Davidson, Don Masden, Mike Seich, and Dick Duncan for their stories of the early days, Linda Aubert for gathering retiree responses, and Karina Goerland for compilation and design.

Einar Goerland
October 6, 1995