energy

Will Lake Charles change with the chemical industry?

The future belongs to the specialized

The petrochemical industry is in the midst of a major upheaval of international propositions which Lake Charles must basically watch from the sidelines, fundamentally unable to influence the course of events affecting the future of its major employers.

The production of commodity chemicals—which have been the undergirding of the Southwest Louisiana petrochemical industry—is gradually migrating overseas, attracted by the prospects of cheap natural gas and electricity, ironically the very advantages which drew them to Lake Charles originally.

Meanwhile, the domestic chemical industry is rapidly moving towards an emphasis on so-called specialty chemicals, products which have specific applications in industry and the home and are more profitable than the ethylene, polyethylene ammonia and other bulk chemicals which have been churned out of refineries up and down the Calcasieu Ship Channel for the last three decades.

The future of the petrochemical industry—if there is one—will depend largely on whether management of the corporations located here choose to adapt existing facilities to the more specialty-oriented chemical production of today. If they concentrate investment in other areas, petrochemical employment in Lake Charles can be expected to gradually decline over the decade, both in the area of refinery operations as well as industrial construction.

Those rather stark, but nonetheless realistic, conclusions have been drawn from a series of interviews with officers of petrochemical companies, as well as the Louisiana Petrochemical Industry Assessment published recently by the state of Louisiana.

That report spells out in full what many people inside the industry have been talking about for the last year: Third World nations are rapidly expanding their share of petrochemical production.

"Foreign competition and reduced demand has created a roll-back in capacity that is likely to continue in Louisiana, even with economic recovery. Currently there is four times as much ammonia and two times as much ethylene capacity expansion underway in other world areas than Louisiana's total capacity," the report, issued by the Department of Natural Resources, states.

"I very much believe that we are not going to compete on the world market medium-term or long-term in making low value-added commodity chemicals," says Greg Tawes, plant manager at Hercules, Inc. in Lake Charles.

And there are prospects that dislocations of the type which have thrown thousands of people out of work in Lake Charles will continue. The crux of the problem is energy. While Louisiana once enjoyed abundant supplies of cheap natural gas and electricity, the state is now not even competitive with other states, much less foreign countries where natural gas is flared and hydroelectric power reduces utility costs to one-tenth those in Louisiana.

"For that part of our industry burdened with expensive gas or the electricity-intensive facing significant utility rate increases, their future can only be described as bleak [emphasis theirs]," says the report.

Domestic changes

But even as the international chemical market is restructured, a rapid transition is taking place in the shape of the domestic production. The huge corporations which dominate the industry are looking to so-called specialty chemicals to provide the profits which will keep their balance sheets attractive in the 1980s. There are several characteristics...
which distinguish specialty chemicals from the commodity chemical, which currently makes up the bulk of production at Lake Charles.

Specialty chemicals generally have more targeted applications for industry or home use than do commodity. They satisfy a specific need which few or no other chemicals can meet. For example, polyethylene, a commodity product such as the type which was manufactured at the Cities Service facility in Lake Charles, has a wide variety of uses. Ultimately there is not a whole lot of difference between that product and one which would have been produced at some other polyethylene facility.

An example of a specialty chemical, on the other hand, would be an additive to house paint which increases the durability of the substance. More than likely, that specialty chemical has few, if any other uses but nevertheless is very valuable to the manufacturer of the paint. Other examples of specialty chemicals would be herbicides, pharmaceuticals, petroleum cracking catalysts—the list is endless.

Another characteristic of specialty chemicals is their profitability. Because they satisfy a specific need, they command a premium price—there is a lot of value added at the point of production.

Of course, it is a mistake to look at the difference between specialty and commodity chemicals as one of black and white. Rather, the entire process of chemical production involves starting with a raw material—generally oil or natural gas—and gradually refining it into more and more specialized uses. Every step along the way, more value is added. The upshot of the change in the domestic chemical industry is that more and more value is added. The upshot of the change in the domestic chemical industry is that more and more value is added—taking place overseas, while the latter steps—where the real value is added—are taking place within our borders. Complex keep pace with this fundamental realignment of priorities? Or will it lag behind and gradually fade away, leaving a legacy of outmoded steel and permanently laid-off employees?

As with most such rhetorical questions, there are no definitive answers. It is clear, however, that some companies are already upgrading their processes in Lake Charles to adapt to changing market conditions.

For example, the Hercules plant at Lake Charles has over the two decades of its history moved towards the production of more specialty co-polymers which are used to make such products as fiberglass and fiberglass. The WR Grace facility produces petroleum cracking catalysts, used in the refining of gasoline. Conoco Chemicals produces products which are fairly high up on the production chain.

The extent to which this trend continues will ultimately depend upon decisions by corporate management as to the future of their investments in southwest Louisiana. It’s unfortunate, but true: Lake Charles and her people will not play a major role in this decision-making process.

"I don’t think Lake Charles as a community can do a whole lot about it," says Tawes.

But Tawes and others agree that decisions made by the area’s leadership can have a very negative effect on the petrochemical companies located here and could discourage them from making further investments. One major factor, says Tawes, is the high cost of construction labor in Calcasieu Parish.

"It is very much union dominated and the unions have been reluctant to recognize that they are pricing themselves out of the market," says Tawes.

Fred Loy, vice president of the Louisiana Chemical Association, an industry trade group, says the business environment created by state government will go a long way towards determining whether petrochemical operations located within Louisiana make the transition into the age of specialty chemicals.

"If the state of Louisiana does nothing to suppress this second generation of chemicals, then you’re going to see some chemical jobs open up," says Loy. On the other hand, if the state abolishes or drastically alters such inducements as the 10 year industrial tax exemption and passes stringent environmental laws, Loy says Louisiana "will see the industry stabilize at a lower rate than it is at the present time."

Everyone agrees that it behooves Louisiana—particularly areas like Lake Charles—to diversify its economy, to end the dependence on petrochemical jobs, and to attract more of a mix of industries. But they insist that the chemical industry can—and must—continue to play a major employment role in the state. A policy of ignoring or attacking the facilities which have been a major component in the state’s industrial growth will do nothing to improve present-day economic conditions, they claim. Says Loy: "Kicking us out ain't going to get your mix in any faster."