Juggling Act

Here's how industry leaders are tackling what they consider to be the three big issues in the industry - the energy crisis, national security, and poor railroad service. And here's what they want YOU to do!

Editor's Note: This is the first part of a two-part series examining the top issues in the chemical processing industry.

By Joy LePree

Tell Us About Your Success

This year has given a good start to some companies and thrown a few curves at others. Although it's still too early to tell exactly what the year will bring, it's probably an excellent time to be asking what you, as chemical processors, can do to improve the industry outlook for 2007. CHEM.INFO spoke with industry leaders across the country about their top concerns for 2007 and concluded one sure thing: It's impossible to keep a good industry down despite the challenges presented by the energy crisis, the burden of plant security, and the trials of poor railroad service. Industry leaders made it clear that they're not willing to sit and watch these high-profile problems damage the industry, thus giving hope that 2007 will be a better year. This exclusive report examines industry opinions about the most critical issues in the chemical processing arena and looks at the plans being made to overcome them.

Issue #1: Energy Crisis

First and foremost on the minds of industry leaders are the rising costs of natural gas and energy. "From a natural gas point of view, there have been higher prices for the last five years, and this is really hurting the industry because chemical processors use natural gas for so many things &#151 electricity in our plants, heat for our processes, and as a feedstock," says Dan Borne, president of the Louisiana Chemical Association. "We make many different things from natural gas as a baker would make bread, cake, bagels, and a variety of items from flour. We make liquid from natural gas and that liquid goes into just about everything we make."

According to Borne, while the current price of $4 to $8 for natural gas in Louisiana provides some relief from the $15 price tag of a year ago, it is still problematic for processors in that part of the country. "Louisiana is the third largest consumer of natural gas behind Texas and California. Industrial consumption in Louisiana is second in the U.S. behind Texas. And, Louisiana's combined industrial and power

generation gas consumption is almost as great as that used in all of China and is greater than the natural gas consumption for all of Spain, Portugal, Australia, and many other countries," says Borne.

"We use a huge amount of natural gas and when it goes up by 10 cents, it may not seem like a lot but when dealing with commodities that swing on a penny a pound, a 10 cent increase in natural gas can make a commodity non-competitive on the national market," he explains.

The rising price of natural gas is a detrimental problem across the country, and when it's combined with the high cost of energy, it packs an extraordinarily hard punch for chemical processors. "Our New Jersey members use a massive amount of electricity and it is really expensive here &#151 about 70 percent higher than the national average," says Hal Bozarth, executive director of the New Jersey Chemistry Council. "And when you add that to the sad story of the increasing price of natural gas, the picture gets even more bleak."

These high costs affect processors around the country, according to Jack Gerard, president and CEO of the American Chemistry Council. "For every $1 increase in the price of natural gas, it costs the chemical industry, as a whole, about $3.7 billion, making this issue No. 1 for us," he says.

"The industry is really squeezed between the rising cost of feedstocks and energy," says Dr. James Stevens, recent recipient of the 2006 Perkin Medal and research fellow with the Dow Chemical Co. "The bills Dow pays for its feedstocks and to run its processes continue to grow every year. And it seems our national policy is not to take the feedstocks and energy the manufacturing industry needs and earmark it for them. It just seems foolish and detrimental that there is not a rational national policy on energy."

However, if the ACC has its way, this will change. The organization has been busily advancing the energy crisis message on Capitol Hill with hopes that it will provide some relief in the coming year. In last year's Congress, "we got bills passed through the Senate and the House to expand the natural gas supply in the Outer Continental Shelf," says Gerard. "Our current strategy is to get the House to pass the Senate bill which will provide access to another 8.3 million acres in the Gulf of Mexico for natural gas development. Of that 8.3 million acres, we know there's a proven reserve of over 5 trillion cubic feet of gas."

While the chemical industry waits for some Congressional relief, processors continue to find ways to become more efficient and beat the system. "We will continue to be very aggressive on the natural gas issue and urge our members to

become more energy efficient to deal with this crisis," says Gerard. "Energy efficiency makes good business, and in the chemical industry, we are leaders in the effort for energy efficiency."

Beyond increasing efficiency, Bozarth says his members are working toward legislation in New Jersey that would give manufacturers an energy use tax break. They also have developed an entity called the Energy Aggregation Group. "We put together about 45 companies and combined their load and then shopped that 350 megawatt load on the open market and have gotten them lower energy prices because of the aggregation," says Bozarth. "Chemical processors are saving buckets full of money because we are buying energy in bulk."

Issue #2: National Security

No one disputes the importance of keeping chemical facilities under lock and key to prevent their use as weapons of mass destruction. As a matter of fact, despite the cost to the industry &#151 an estimated $3 billion &#151 security measures have been undertaken willingly. "There have been significant changes at our facilities since 9/11 and they have been expensive to implement, but they have been done on a voluntary basis because, as an industry, we felt it was our responsibility to keep our workers and the public safe," says Gerard.

While many of the actions intended to shore up chemical processing facilities have been voluntary through local industry associations and/or the ACC, Gerard says federal chemical plant security requirements have recently been enacted, and the Department of Homeland Security (DHS) is working on accompanying regulations, which are expected to be made final in April. "They are working in a short time window to very aggressively get those in place," says Gerard. "And we, as an industry, have supported them so far because we are big believers that, as responsible members of the chemical industry, it is our duty to improve security in our facilities."

He says that because the legislation passed by Congress acknowledges industry-wide programs such as ACC's Responsible Care and because the regulations being developed by DHS are expected to be consistent with such programs, facilities that adhere to industry standards are probably already in compliance and should see no changes in the day-to-day routines.

Over in New Jersey, which was the first state to see chemical plant security legislation brought to the table in the form of a prescriptive order, Bozarth agrees. "We've seen a lot of activity in the last few years on chemical plant security, and we've worked with the state government to develop a plan to ensure the secure treatment of chemical plants," says Bozarth. "We've already entered into agreements with labor unions for security training, we've supported legislation that would demand background checks for employees, and we've spent a lot of time developing best management practices and having them implemented, as well as conducting site vulnerability assessments and entering into partnerships with state and local emergency responders. So, when the federal regulations are put into play, things shouldn't really be any different for us.

"Security is the new ethos in the business of chemistry," Bozarth continues. "It used to be worker safety and environmental protection were naturally and normally engrained parts of our business, and now we've added to those things the issue of chemical plant security. It has cost us money, but we know it is money well spent if it ensures that our workers and surrounding communities are protected."

While chemical processors proudly support uniform federal legislation, there is some concern in the industry that the new Congress and new regulations will bring added issues. "I fear that the new Congress may attempt to bring something called inherently safer technology (IST) into the security issue," says Borne. "While it sounds good to be safer, what it really means is that there are certain chemicals that will be identified as too hot to handle, and there will be some people who will want to erase such chemicals, for instance, chlorine, from the periodic chart of elements. This is not a security issue and should not be wrapped up in chemical plant security."Borne insists that it is imperative that IST be left to the experts in the chemical industry, not the government. "As chemists, we know how to handle the chemicals in question in the safest manner possible, and we have installed in our plants the most sophisticated and technologically advanced equipment you can buy," he says. "Of course, there are accidents and mistakes, but overall our record is very good. You can look at the safety record of the chemical industry and 'lost time accidents' among employees and see that it is safer to work in a chemical plant than on the local newspaper. As chemists, we know what we are doing and cannot allow legislators to bundle IST regulations into the security of chemical plants."

If the ACC has a say in the matter, IST and plant security will remain separate issues. "There are some who would like to convert this necessary regulatory action regarding security into a discussion of IST, which is an environmental issue and not a security one," says Gerard. "We will be mindful of that and will be very attentive to make sure that we keep chemical plant security legislation focused on security, not IST."

Issue #3: Railroad Service

For some time, the industry has been an advocate of relief from the high prices, poor service, and lack of competition they claim to see in the railroad industry. Many who use the railroad maintain that partial deregulation, which began with the 1980 Staggers Rail Act and ended with the rail industry no longer subjected to the Sherman Anti-Trust laws, unintentionally resulted in the railroad industry having monopolistic control over thousands of miles of rail routes. Industries, including chemical processing, that rely on these routes to ship their goods are considered captive because they have no option but to use a single railroad and, as a result of the lack of competition, often face high rail rates and poor and unreliable service.

"The chemical industry moves 170 million tons of chemical products each year via the rails and, unfortunately, two-thirds of our facilities are captive rail customers," says Gerard. "This means that only one rail line services a particular plant or area."

According to Borne, this problem is especially apparent in Louisiana. "While the railroad issue a national one, it is particularly difficult here where so many of our plants are captive to one rail line or another and are being forced to pay more for rail service that is often unpredictable."

In fact, it was the Louisiana rail issue that bubbled to the top and got Congress interested. "We now have rail reform bills in both the House and the Senate," says Borne. "Louisiana has two members in the Senate and seven in the House, and eight of those nine are co-sponsors of rail reform legislation.

"What they and the chemical industry are working for is bringing competition back to the railroad industry," Borne continues. "This clearly needs to happen because they are currently operating a monopoly that isn't subject to the same anti-trust laws as the rest of us, and it is a major impediment to the expansion of plants in Louisiana as well as other parts of the country."

Beyond this issue, the ACC is also concerned that the rails are over capacity, resulting in even worse service. "We are working with the railroad union and others to make sure we protect the infrastructure. At the same time, the chemical industry is trying to improve railcar design so that together, in a holistic way, we can improve service and have safer transportation at more cost-effective prices," says Gerard.

"It is really important that we have a transportation infrastructure in this country that allows us to move our product in a safe and effective way, and we will continue to work with the rail industry and other coalition industry groups in the coming year to make sure we are getting the most we can for our money."

"The issues affecting the U.S. manufacturing industry, and therefore the chemical processing industry, are all ones that we in the U.S. can control and make this country the venue in which all manufacturers, including chemical processors, can profit," says Borne. "The problem is that while we can control them, the government seems not to. So, it is up to us in the industry to rally for what we need to operate our plants in the most cost-efficient way possible and so that we may succeed."

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