Chemical Logistics: Making the Transition
As the economy drives change, chemical players adapt.

The depressed global economy drove some fundamental inventory strategy changes that may linger into the recovery. After companies in all industries worked off inventories that had accumulated as demand slowed, they began replenishing stock more in line with demand. That strategy has kept inventories trim and reduced capital requirements, but it has also driven some changes in logistics, transportation, and supply chain management.

Matching supply to demand has specifically impacted the chemicals industry, despite its unique production and distribution qualities. Third-party logistics (3PL) and technology companies report that chemical industry customers are seeking better demand management support as they attempt to align their supply chains with the market. Volumes have increased as demand grows, but companies are stockpiling less and concentrating more effort on improving supply chain visibility.

Supply lines aren’t necessarily changing, notes Stephen H. Albrecht, manager of terminal and warehouse operations for Odyssey Logistics & Technology, a 3PL located in Danbury, Conn., but some suppliers are positioning materials closer to the point of use. “Many smaller suppliers are also consolidating shipments to take advantage of lower costs associated with shifting transport modes,” he says.

While that mode shift can mean increased use of ocean transport for imports and exports, companies managing smaller shipments are opting for truckload and rail intermodal services in place of rail bulk.

Forward staging of inventories in tank storage and bulk facilities also appears to be declining as many 3PLs report more products moving directly to consumption.

Even so, bulk terminal and tank capacity are limited, says Albrecht, fueling the move to more transloading of product into rail cars, tank trucks, and drums at the warehouse.

Truck transportation capacity is tight in general; so is capacity at certain types of facilities. That’s pushing pricing up, and logistics and transportation service providers are looking for ways to hold on to those increases. Many providers, however, have not instituted rate hikes as the downward spiraling global economy stripped away volumes and drove shippers and consignees to apply pressure on pricing to achieve their own cost-cutting goals. Pricing isn’t as much a retaliation in the back-and-forth battle between shippers and logistics providers as it is a new market reality.

Capacity isn’t just tight because demand returned quickly; a number of factors will likely keep it tight.

First, much of the capacity permanently exited the industry during the economic downturn. Russia and Nigeria, for example, were strong markets for exports of used U.S. trucks and trailers.

Second, tighter emissions standards on trucks being produced now, and new mandated environmental technologies, will drive up the cost of replacement vehicles.

Third, new safety requirements for drivers will make it harder for those carriers that can even get financing to fill driver’s seats and acquire capacity. Driver hours-of-service rules will be reexamined, and requirements to add electronic onboard recorders are also coming.

The economic downturn focused attention and stimulated action in areas chemical supply chains need to address in light of the permanent, long-term changes that lie ahead. But the chemical logistics sector is coping with these changes and preparing for the future, as the following profiles demonstrate.
Focusing on Demand
Lean inventories throw a spotlight on demand management.

Everyone is watching inventory, notes Ed Hildebrandt, senior vice president of operations for ChemLogix, a chemical industry consulting services, TMS technology, and comprehensive transportation management services company based in Blue Bell, Penn.

That’s no surprise after months of recession, but the lean inventory strategy is putting more emphasis on demand management in an industry that has been largely production-oriented.

Fewer chemical customers are filling tanks with product and asking for tank monitoring services to keep them full. “It’s just not happening in this economy,” Hildebrandt says. And that means more truckload shipments at a time when capacity is already lean.

Truck tonnage was up seven percent in March 2010, he adds, noting that spot market transportation pricing also rose as volume increases consumed available capacity.

Bulk carriers are looking for rate increases. Will they hold? If load patterns return to September levels because companies aren’t building inventory, they may not. But many of the underlying circumstances won’t disappear, says Hildebrandt.

In the past 18 months to two years, as the economy began to slide, load counts dropped and carriers started disposing of excess capacity. In the tank truck industry, only so many trailers are available, and they are expensive. One tractor manufacturer that was begging for orders four months ago now has a six-month backlog. Orders for new technologies face similar backlogs as new safety regulations take force.

After the severe trough carriers experienced, they won’t be anxious to invest capital in new tractors and trailers, Hildebrandt notes. In many cases, they don’t have the capital, as a consequence of lower volumes and revenues. And, finally, who will be willing to lend to a motor carrier? So, capacity is likely to remain tight, even if the economy doesn’t take a double dip.

If there was a more orderly return to order patterns, it would be easier to cope, but ChemLogix has seen a 30-percent surge in orders from some customers in the last 30 days. “That’s tough to plan for,” says Hildebrandt.

In January 2010, companies held the attitude that they were just rebuilding inventories. But the trend continued into February, and grew through March into April. Where the ChemLogix approach to a customer’s business might involve three core carriers and three backup carriers, in some cases they’re calling 40 or 50 carriers to get capacity to handle the growth. “If shippers had to do that, they would have to double their staff to make the calls and get the capacity,” Hildebrandt notes.

All this change has also brought about changes in the technology that supports transportation management. One year ago, ChemLogix was automating spot tendering to get spot bidding because there was excess capacity in many lanes, says Mike Skinner, vice president ChemLogix Technologies. “That has shifted significantly,” he says, and

“Our volumes for the first four months of 2010 are up 50 percent. Intermodal customers are stepping up production, working three shifts, and still not keeping up with demand.”
— Steve Hamilton, managing director, ChemLogix Global

the company now covers loads by using its transportation management system to broadcast to carriers. ChemLogix also uses the transportation management systems to measure and track carrier safety compliance and performance, including looking outside the loads the carriers handle for ChemLogix customers.

ChemLogix also plays in the intermodal field through a history with Union Pacific and its 2008 acquisition of Bultkainer.

“Our volumes for the first four months of 2010 are up 50 percent over the same period in 2009,” says Steve Hamilton, managing director of ChemLogix Global. The loads include shipments of paint and coatings to auto plants in Mexico City. “Other intermodal customers are stepping up production, working three shifts, and still not keeping up with demand,” he adds.

It is difficult to find truck capacity, but the Chicago-to-Mexico City lane is a four-day transit for ChemLogix intermodal liquid bulk shipments, and those trains run about 99 percent on time, says Hamilton.

Intermodal has been around for decades, he adds, and he is surprised that more customers don’t ask about it. But with tight trucking capacity and vastly improved intermodal performance, that could change.
UNDER PRESSURE to reduce costs

Solution: Outsource with ChemLogix

ChemLogix has extensive experience helping chemical companies improve their logistics operations performance through a comprehensive menu of proven outsourcing solutions that increase efficiencies and reduce costs.

- Freight Management Outsource
- On Demand TMS Technology
- Freight Benchmarks & Procurement
- Freight Audit & Payment
- Rail Fleet Management
- Global Freight Management
- Intermodal Freight Service
- Network Optimization