



WITH POLAR TANKS, SLAY TRANSPORTATION HELPS CHEMICAL PRODUCER INCREASE PAYLOADS BY 20%

Consistent. Productive. Reliable. They're words Mike Jackson wants to hear when customers describe Slay Transportation, the St. Louis, Mo., bulk chemical transportation and logistics company.

"A quality job is one that's picked up and delivered on time, loaded to capacity, and no different from the previous one or the one to follow," says Jackson, vice president of operations at Slay.

That's precisely what Huntsman International, a global chemical producer based near Houston, wanted for its Gulf Coast propylene oxide distribution business. Each year the company ships 230 million to 250 million pounds of propylene oxide as feedstock for its chemical plants in Texas and Louisiana.

Using common carriers proved costly and constraining. Tractor-trailer configurations were inconsistent, which meant payloads varied considerably from truck to truck. It was difficult for Huntsman plants to know what to expect from their inbound loads. Planning and efficiency suffered.

Determined to build predictability into their propylene oxide distribution, in 2009 Huntsman issued a bid request for a five-year transportation and logistics contract that included standardized equipment, increased payload, and a higher level of safety than what they were receiving at the time.

"We had not worked with Huntsman on this type of haul before and wanted to make sure we presented the best possible business case for having us manage their transportation and logistics," says Jackson. Because the trailer spec would be critical to meeting the bid requirements, Slay contacted Polar Tank.

An Active Partner

Slay and Polar have a strong relationship— the majority of Slay's 1,200 liquid bulk trailers are made by Polar.

To win the Huntsman business, Slay set out to offer the most productive vehicle possible. "We brought everyone to the table— us, Polar, and the Huntsman engineers and logistics team," Jackson explains. "Polar was an active partner. Their expertise and personal attention helped us develop precisely the right trailer for Huntsman— a big part of why we got the contract."

More Payload

The Polar spec is an 8,500-gallon stainless-steel tank trailer capable of carrying 53,000 pounds of propylene oxide in Louisiana and 56,000 pounds in Texas (allowed with overweight permits). The tank is uninsulated with a 10-gauge shell and 8-gauge heads and can easily handle the 35-psi maximum pressure allowed for DOT407 trailers. The subframe is stainless steel, and the Hendrickson Intraxx suspension, aluminum disc wheels, and wide-based single tires help the trailer weigh in at 11,000 pounds.

In July 2010— just nine months after the bidding process began— Slay put 15 Polar tank trailers into service handling eight loads a day each in the Houston and Geismar, La., areas.

POLAR

Slay estimates that the higher payload capacity will eliminate 861 shipments of propylene oxide a year. Compared to the previous equipment, Huntsman is able to move more than 20% more payload using Slay and its Polar trailers. With its common carriers, payloads never exceeded 44,000 pounds.

Reduced Risk

Slay's approach to safety and risk reduction was another key to the Huntsman business. While the tractors and trailers have the latest roll stability and collision safety systems, Jackson points to safety features built into the design of the trailer.

Polar's state-of-the-art pipe-bending and fabrication equipment all but eliminated welded connections—potential leak points—in the trailer's vapour-recovery system. Their engineers studied the potential long-term effects of propylene oxide on trailer materials and components. They learned that brass, bronzes, and similar copper alloys can react with the product to create highly flammable acetylene gas and took measures to eliminate these alloys from the valving, venting, and other areas. They chose encapsulated manhole gaskets along with Kalrez and Chemraz seals in the valving and dry break assemblies to prevent deterioration of those critical sealing points.

Finally, Polar incorporated closed-loop loading and unloading including a remote-operated vapor recovery system and dry disconnect system. "The closed loop means drivers never have to climb on top of the trailer," Jackson explains. The benefits are threefold: it eliminates the risk of slips or falls, reduces the potential for spills during loading or unloading, and allows the company to omit the catwalk to save weight.

Direct Approach

Polar worked directly with Huntsman plant personnel, visiting the company's facilities to observe actual loading and unloading of the product. "They saw the real-world operating conditions at the Huntsman plants and it gave them insight into how to increase operator satisfaction with the trailer," Jackson says. Likewise, Huntsman personnel visited the Polar factory to inspect the first two trailers off the assembly line.

"This is dedicated equipment, built just for their operations," Jackson says. "We wanted them to see how the trailers were built and to review specific safety features designed into the trailers." When the new equipment arrived, Huntsman plant personnel were trained and prepared for it.

Jackson says Slay's approach and the results so far may lead to more work with Huntsman. "They're a very large chemical producer, and we want them to see the effort and consideration we put in to our dedicated contract business," Jackson says. "It shows what's possible when you have a great partnership between the carrier, the customer, and your equipment supplier."