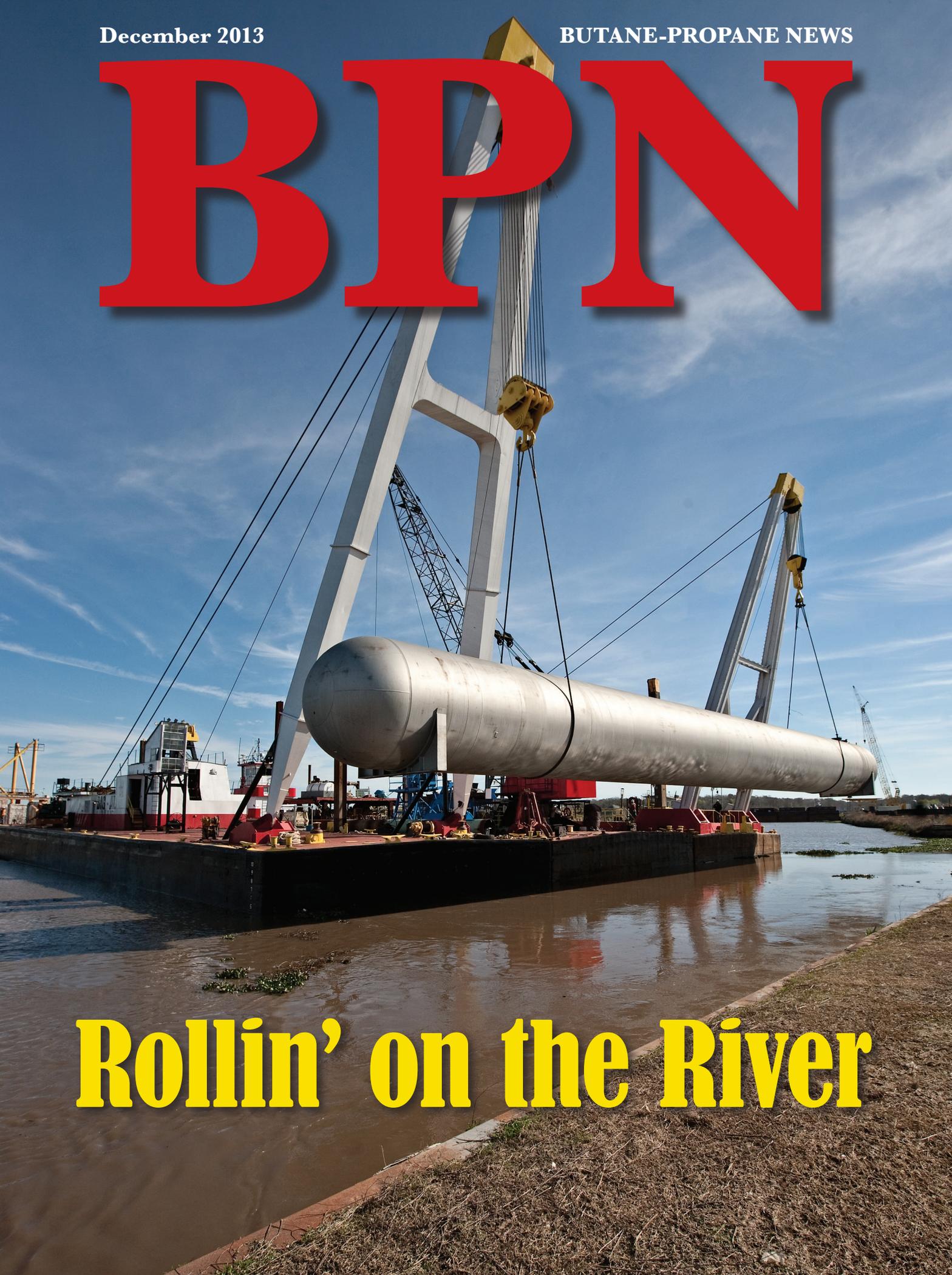


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BUTANE-PROPANE NEWS

# BPN



## Rollin' on the River



# Steam Up the Big Muddy, Turn Right at the Ohio

**W**hat a voyage. Stillwater, Okla.-based Total Energy's heavy haul division earlier this year barged six 168-ft-long, 350,000-lb ASME propane tanks from Louisiana to Steubenville, Ohio, plowing the Mighty Mississippi River north through St. Louis to Cairo, Ill. where the Big Muddy meets the Ohio River. After hanging a right into the Mississippi's largest tributary, it was another long passage northeast to Steubenville, where the 175,000-gal. containers were offloaded for over-the-road delivery to a midstream operator in eastern Ohio's Utica Shale.

Those half-dozen Bayport and AMF Beard bullets, manufactured in 1967 and 1971, and a seventh sibling scooped up by another Total Energy customer, had been scheduled to be scrapped by a demolition contractor hired by Chevron that was decommissioning a plant in Erath, La. formerly operated by Texaco. Although the tanks could be salvaged and placed back in service, their daunting size,

and the logistics required to transport them, scared away all but a single buyer.

Without a third-party buyer of its own at hand, Total Energy, an energy products and services company serving midstream, refining, petrochemical, utility, oil and gas producer, agricultural, and industrial clients, stepped in and purchased them in an eleventh-hour rescue before they were scrapped, adding the vessels to its ASME inventory.

At the time of their acquisition, they were thought to be the largest vessels available in the U.S., says Frank Kovacs, director of sales and acquisitions at Total Energy. "They were the largest LP bullets we knew of, and we believe we have knowledge of about 90 percent of what's out there. We were aware of some 120,000-gallon tanks that were available at the time."

The Chevron tanks were removed from their foundations, raised, and moved on dual-lane trunnion trailer sets about four and a half miles away to Abbeville, La., where

## Load 'em up...



they sat in a storage yard for a year before being purchased by MarkWest Energy Partners LP subsidiary MarkWest Utica.

### Off to Ohio

But because Abbeville isn't near the banks of the Mississippi, before the tanks could even splash down for their passage north they first had to be hauled south to the Intra-coastal Waterway and then to the Gulf, says Kovacs. And so began the nearly six-month endeavor to transport the huge bullets to the northeast and return them to service.

"The process began by bringing together the resources needed for this massive undertaking—barges, tugs, skilled welders, and the equipment and crew needed to move the tanks from their storage area to the dock," notes Kovacs. He recounts the project called for the tanks to be loaded on six individual hopper barges using 400-ton and 500-ton cranes capable of securely lifting the loads. The vessels were prepared to receive the tanks while barge-based cranes were positioned alongside the lift area.

Meanwhile, a land team used dollies capable of supporting 500 tons to maneuver the bullets from their storage

The 175,000-gal. tanks were hoisted onto hopper barges with 400- and 500-ton, barge-based cranes capable of securely lifting the loads, above and on opposite page, as a land-based team used dollies capable of supporting 500 tons to maneuver the bullets from their storage area to the dock. The tanks, below, were welded to I-beam saddles to prevent movement onboard while the cargoes were under way.

## Ready to unload...



# Unload the barges...



area to the dock location. Using stout cables rated at more than 300 tons, each tank was lifted onto a separate barge. I-beam saddles were then welded to the tanks and freight ships to prevent any movement onboard while the cargoes were under way. Then it was off to Steubenville, a thousand waterborne miles upstream, more or less.

In Steubenville after a safe passage, the process was reversed. Each tank was lifted from its barge and secured on dollies, then transported to a staging site to await the move to their final location in Hopedale, Ohio. That final move was described by Kovacs as being “an outstanding display of coordination” between his company and state and local officials.

The diversified company’s heavy haul division owns, operates, and maintains a fleet of specialized transportation equipment, including steerable dollies, trunnions, and motorized dollies. Total Energy moves lengths exceeding 200 feet and weighing up to 500 tons.

“There was a five-week delay between the first and second load,” he recalled, explaining that officials wished to gauge the plausibility and effectiveness of the transportation plan, which called for the tanks to be moved on consecutive Sundays. The process involved closing down a miles-long section of state highway and even traveling in opposing lanes in order to pass under overhead obstructions.

Kovacs comments that each transport rig was 260 feet long, 20 feet wide, 17 and a half feet tall, and weighed 570,000 pounds, adding that each single load was among the largest ever permitted by the Ohio Department of Transportation’s southeast region. The tanks were driven about 22 miles from the staging site along the Ohio River on divided highways and through towns, taking seven and a half hours.

At the MarkWest facility, the bullets were lifted off their transports and placed in yet another staging area to await construction of their permanent foundations. When that construction was completed, Total Energy’s heavy haul division used their hydraulic motorized dollies to move the tanks to their piers, where cranes set them on their foundations.

## More Big Moves

But it’s not as though that colossal tank move was a one-off project for Total Energy, comments Kovacs. The company has provided more than five million gallons of storage to midstream operators in the northeast, and is itself a manufacturer of MegaBullets in standard sizes of 200,000, 250,000, 300,000, and even 350,000 gallons. The company ships those bullets in one piece for water-to-water deliveries through the Port of Catoosa, Okla., or in two or

# Out for delivery...



three pieces over the road for completion at the customer location.

Total Energy also maintains a large inventory of warranted ASME storage tanks, ranging from 1000 to 350,000 gallons. Its new 335,106-square-foot corporate headquarters and fabrication facility in Stillwater is on a 40-acre site served by rail, and houses field services, heavy haul trucking, operations, and ASME fabrication divisions. Expanding to Stillwater in 2014 will be Total's engineering and construction division.

Its fabrication division provides new ASME storage tanks and process vessels, and has plate roll and plasma tables on premises in Stillwater. The department provides custom alterations, all performed by U, U2, and R&S stamp-certified welders. The field services division offers tank installation and piping, site preparation, pier installation, and valve and piping installation. The division also handles field tank modifications on existing customer tanks.

Other services include engineering and construction services for pressurized gas storage, processing, and distribution facilities, including rail and pipeline terminals, in addition to large-scale demolition and scrap services that specialize in spheres, solos, API tanks, asbestos abatement and environmental services, concrete recycling, and scrap steel, aluminum, and copper recycling. Finally, Total Energy's plant acquisitions department dismantles utility, energy, petrochemical, industrial gas, and chemical plants.

—John Needham

**The haul to MarkWest's facility in Hopedale involved closing down a miles-long section of highway and traveling in opposing lanes in order to pass under overhead obstructions. Each transport rig was 260 feet long, 20 feet wide, 17 and a half feet tall, and weighed 570,000 pounds.**

