

Record field lift

Two massive reactors, each weighing nearly three million pounds and standing 143 feet 6 inches tall, journeyed from the Port of New Orleans up the Mississippi River to a refinery in the Southeast. From transportation to final placement, the project required customized solutions at every step to address the unique challenges of the route, site and massive loads.

Multiple roll-off scenarios were developed to account for the Mississippi River's ever-changing water levels, with surveying teams conducting precise field measurements to ensure perfect alignment throughout the transport corridor. To ensure the transport could adapt to fluctuating river levels and meet strict Army Corps of Engineers specifications, Deep South engineered and constructed a specialized heavy-haul bridge from scratch to carry the reactors over the Mississippi River levee and its adjacent road.

Riverbank lift

From ship-to-barge transloading at the port to precise roll-off operations and railroad crossings due to stringent railroad requirements, every phase demanded

Rigging two three-million-pound reactors required expert engineering and problem solving by the Deep South team.

The operation required Deep South's 2,500-ton VersaCrane TC-3600.



meticulous planning and real-time problem-solving. Deep South used 28 axle lines of triple-wide Scheuerle SPMTs for roll-off and 28 axle lines of double-wide Scheuerle SPMTs for in-plant transport.

But delivering these colossal reactors to the refinery was only the beginning. A second challenging phase lay ahead: lifting each 3-million-pound reactor into its final position.

Following the Deep South-facilitated reactor transport, the team was tasked with lifting the two reactors into position, each weighing nearly 3 million pounds and measuring 143 feet 6 inches long by 21 feet 6 inches wide. The operation required Deep South's 2,500-ton VersaCrane TC-36000. It was rigged in a customized Configuration 6. This was Deep South's heaviest field lift in company history.



A custom heavy-haul bridge, a newly engineered tailing system and hands-free pin puller and a customized crane configuration are just some of the solutions developed by the Deep South project team.



The overall transport height of each reactor was 23 feet 3 inches.

The lift presented its own set of site-specific challenges, including a confined space that required a new approach to tailing the reactors. To support the massive lift and eliminate the need for a tail crane, the team used a newly designed and fabricated 1,000-ton tailing frame mounted on a 12-axle-line, quadruple-wide Scheuerle SPMT trailer.

Deep South's team also custom-engineered and fabricated a 2,000-ton hydraulic pin puller for safe, hands-free rigging attachment and detachment, which eliminated the need for an additional assist crane with a man basket. Deep South's custom steel mats and bridge ramps helped to achieve optimal load distribution for Configuration 6, with 1.2 million pounds of main counterweight and 2.8 million pounds of hinge counterweight.

Master planning

After nearly three years of extensive planning and one year of construction and execution, the job was completed safely and on time thanks to strong teamwork and careful coordination with the client, according to Deep South President Jeremy Landry.

"From the custom-built heavy-haul bridge to the customized crane configuration, newly engineered tailing system and hands-free pin puller, the project required a tailored solution at every stage," Landry said.

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From scratch, the Deep South team constructed a heavy haul bridge to carry the reactors.