

TorcSill is the premier provider of engineered Helical Pile and Anchor solutions to clients in a broad range of industries

Project Type
200MMcf/d
Gas Plant

Location
Oklahoma

Executive Summary

TorcSill provided helical pile foundation solutions throughout the gas plant, including pipe racks, pipe supports and a wide variety of horizontal and vertical process equipment. Steel-to-steel design for all the foundations were critical in improving schedule, reducing construction complexities and reducing owner's cost to complete.



Challenges

Geotechnical information indicated a shallow water table ranging from six feet to 22 feet across location, and the original foundation design specified 30-inch drilled piers installed to 30-feet deep. This approach would have required expensive and timely dewatering and casing solutions, significantly impacting the owner's construction schedule and costs due to additional construction equipment.

What We Did

Employing a thorough value-engineering approach, TorcSill's design accounted for every foundation on location, and ranged in pile diameters from 3-inch square tubular material for pipe supports and skid equipment to 24-inch pipe piles supporting high axial and lateral loads and large process equipment.

Further adding value, all pile-to-equipment interface connections were in-house designed as steel-to-steel, eliminating the need for concrete as a structural material, thereby improving schedule, reducing safety risks, minimizing environmental impacts and reducing costs.

Capitalizing on a national operations footprint, TorcSill mobilized its Construction Services TEAM from the nearest of its 13 Districts, less than 40 miles away. This proved invaluable as the scope of work saw continued changes and additions over the course of months of construction.



Solution

TorcSill assumed turnkey responsibility for 1,150 piles encompassing every foundation on this gas plant, delivering significant time and costs savings by carefully designing all the steel connection detail. Whether installing two piles or 200 at a time, TorcSill's in-basin Operations presence provided for quick and inexpensive mobilization throughout the entirety of the months-long foundation construction process.



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