

CST STORAGE BEATS THE CLOCK

HELPS NORIT AMERICAS MEET TIMELINE FOR CONSTRUCTION OF MIDWEST TRANSLOADING TERMINAL

By: CST Industries

Norit Americas, the largest producer of powder activated carbon (PAC) in the world, is at the forefront of developing mercury control technology for the coal-fired power industry. Norit Americas produces DARCO® Hg and DARCO® Hg-LH, a specialty treated carbon, in Marshall, Texas and Bienfait, Canada, supplying product to customers throughout the United States.

The toxicity and persistence of mercury in emissions from coal-fired power plants has caused many state environmental agencies to establish regulatory controls on flue gas emissions. Norit Americas pioneered the use of sorbent injection systems for mercury emission control. Today the company supplies PAC as well as storage silos and dust free dosing systems to the coal-fired utility market for flue gas treatment.

In 2009, environmental agencies' increases in regulatory controls fueled a growing demand for PAC at coal-fired power plants. The demand pushed Norit Americas to expand its production facilities in Marshall, Texas and Bienfait, Canada. To meet the increased need for PAC throughout the upper Midwest, the company also decided to build a transloading terminal near St. Louis, Missouri which would be centrally located within hours of several key customers' locations and be easily accessible by rail and bulk trailers. The PAC is shipped to the Midwest terminal by rail, and then distributed regionally by truck.

"The guarantee of PAC availability, as well as cost efficiencies of this method of distribution, makes it worth our while to ship the product by rail and unload into storage silos, then move through transloading stations to bulk trailers," said Dick McKnight of Norit Americas.

The process of building this new terminal facility was set to a tight timeline. The company adopted an aggressive construction schedule and called upon vendors to meet their requirements.



CST Storage (formerly Columbian TecTank), Norit America's storage partner, was given the task of building eight tanks – six steel bolted panel tanks which would store the PAC upon arrival from Texas by rail, and two factory welded tanks with component in tank (CIT) equipment preinstalled by CST Storage to load the PAC into trucks for delivery.

The six bolted panel tanks are able to accommodate even so fine a material as powdered activated carbon. Each tank has storage capacity of more than 200 tons. At 21' dia x 72' tall, these tanks are outfitted with hoppers and include a winding stairway with crossovers for tank roof access. The two smaller factory welded tanks have a storage capacity of 30 tons each and are outfitted for truck load out.

Given just four weeks to complete the job, CST Storage brought in two construction crews to erect the eight tanks. Some components were installed in the field during the construction process. Because the bolted tank panels received their coating individually at CST Storage's manufacturing facility using a proprietary OptiBond™ process, they required no special coating or inspections in the field post-construction. The two factory welded tanks also

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CST STORAGE SOLUTIONS



received their coating at the manufacturing facility, and were transported to the site and simply stood up in place.

“Bolted and factory welded tanks were good choices for this project because of their quick construction in the field,” said Todd Green of CST Storage. “CST Storage has a great history and working relationship with Norit, and working directly with them on the project helped us move through the process more quickly to meet their timeline.”

“CST Storage had proven to us in the past that they are willing to jump through hoops when we need them too, and clearly they came through for us in this case,” said McKnight.

Norit also chose CST Storage because bolted panel tanks may store large quantities of dry bulk material and offer reduced cost and quicker construction over field welded tanks.

Norit's new transloading terminal in St. Louis will process more than 70 million pounds of PAC per year. The company that pioneered the use of PAC

technology for mercury and dioxin emission control expects the demand for PAC by coal-fired utilities to grow and their new facility to supply customers for years to come.

AUTHOR BIOS

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