

GLYCOL TANK - KCI AIRPORT

Embarking on a transformative journey at Kansas City International Airport, the Glycol Tank project showcases the expertise of Tnemec coatings, turning challenges into triumphs. Burns and McDonnell led the design dance, and Genesis Environmental, with Chris Coffman at the helm, brought the vision to life.

This concrete storage tank project included a wide mix of concrete substrates that all involved some restoration of the 13,000 square foot surface area prior to the application of the lining system. For the concrete repair work, Series 217 MortarCrete was utilized at thicknesses up to 1/2" in depth. Series N69 Hi-Build Epoxoline II stepped in as the reliable primer, applied with finesse at 4.0 - 6.0 mils DFT. The showstopper, Series 262 Elasto-Shield, swooped in with a grand 60 - 80 mils DFT to wrap it all up.

The procurement and storage of Series 217 presented some unique challenges, but Tnemec was able to work with the customer to overcome these. The staging of application equipment also proved to be a challenge, but Genesis was able to adapt on the fly and adjust their installation techniques to accommodate the challenges at the site. The decision was made to spray the Series 262 by means of plural component, but there were some difficulties heating the product to 130°F, all while utilizing the hose line that spanned 250-ft. SprayQuip provided essential manpower for the project's kickoff, but the real hurdle was heating the product to 130 degrees for the 250-ft hose line. With the surface at 75 degrees, this temperature difference caused concrete outgassing, leading to bubbling of Series 262. After extensive deliberation, the solution emerged: applying a second coat of N69, strategically minimizing outgassing, and allowing for the project to proceed smoothly. Notably, this was Tnemec's first attempt at using a PC rig for Series 262, and with guidance from Tech Service, it was determined that a minimum of two coats of primer (N69) was essential to counteract the effects of temperature on the substrate.

History spoke volumes with this project; the previous coating lasted two decades. But expanding coverage from 10 to 35 feet, covering the entire tank wall and floor was the game-changer, promising a longer service life. This project was about toughness, durability, and leaving a mark in every layer.

A dream project on the city's wish list for years, it unfolded as a collaboration between Brown & Root, MTS, City of KC, Burns and McDonnell, Genesis, Tnemec, and B&N Inspection. Tnemec's Technical Service Department had numerous touch points on the project, which ultimately helped the contractor to overcome some of the difficulties and unexpected challenges that popped up throughout the project.

"I am very excited to see this project be completed. It was a challenge but by working with great partners in Genesis, we successfully completed the project in a timely manner and are pleased with the results. This only builds our relationship with Genesis for many years to come," said Dustin Keilbey of Midwest Coating Consultants.

A plethora of gallons, 2000 bags of 217, 300 gallons of N69, and 1500 gallons of 262, tell a story of commitment, dedication, and a project that stands tall, both literally and figuratively.

This project isn't just about a glycol tank; it's a testament to the proper utilization of coatings, the resilience of collaboration, and the beauty of a project reaching fruition after years on the city's wish list.

FEATURED PRODUCTS

- Series 217 MortarCrete
- Series N69 Hi-Build Epoxoline II
- Series 262 Elasto-Shield



PROJECT INFORMATION

Location

Kansas City, MO

Completion Date

October 4, 2023

Owner

City of Kansas City – Kansas City, MO

Engineer / Architect

Burns & McDonnell – Kansas City, MO

Applicator / Fabricator

Genesis Environmental – Kansas City, MO

(above) Before and after the glycol tank interior was coated in Tnemec Series 217 MortarCrete, Series N69 Hi-Build Epoxoline II, and Series 262 Elasto-Shield.

