

Project Profile

Brickeys Limestone Grinding Plant, Bloomsdale, Missouri



Limestone storage dome



Bulkhead access door



Limestone storage dome and conveyor equipment

South Industries constructed this Monolithic™ bulk storage dome, in association with Charah Inc. as the general contractor. This powdered limestone storage facility was built for AmerenUE, Missouri's largest electrical utility company. The dome was completed in May 2010.

Purpose:

The dome is located within the limestone quarry and provides a close, safe storage facility. Once the limestone material is mined and ground into a fine powder, it is placed in this bulk storage dome. It is then reclaimed by strategically placed openings in the floor and moved out to the loading station by means of a conveyor system. The powdered limestone is trucked to 3 different electrical generating plants and injected into the smokestacks to greatly reduce the outbound pollutants.

Construction:

The exterior is made of a polyurethane-nylon membrane for weather proofing. Then a layer of rigid foam insulates the 6 inch thick concrete shell. The dome also incorporates a 14.5' by 14.5' bulkhead door that is engineered to withstand enormous amounts of pressure from the material inside. Special thanks to Dainton Rahn, Charah Project Manager, and Dave Grimwood, Charah Plant Manager, for their coordination and making the project a great success.

“The management at Charah really needs to be commended on their incorporation of the domes and the many advantages with their new limestone facility. Energetic from the start and very accommodating to our needs, our progress sailed through with barely a hiccup to stall momentum.”

Derek South
Project Superintendent

Diameter: 98 ft

Height: 49 ft

Floor Area: 7,543 sq ft