

Project Data Sheet

Project
Coal Storage Silo for Power Plant

Location
Muscatine, Iowa

Client
Muscatine Power and Water

Completed
2001

Silo/Dome Diameter
39 feet/11.89 meters

Silo Height
85 feet/26.0 meters

Silo Volume
1,200 tons

Consulting Engineering Firm
CDG Engineers, Inc.
St. Louis Missouri

Project Background
When Muscatine Power and Water (MPW) in Muscatine, Iowa, decided to use "blended fuels" for combustion in several of its power generating units, changes had to be implemented at its power plant. To attain better compliance with requirements of the Clean Air Act, the fuels needed to blend both high-sulphur and low-sulphur coals. The overall objective was to devise a way to use existing and new equipment so that coal supplies could be blended.



"Because this silo would be greater than 30 feet in diameter, erection and assembly concerns were very important," reported Bernie Schonbach, principal of CDG Engineers. "The stave silo design was chosen over welded design for this reason, and *Columbian TecTank* of Kansas City, Kansas, provided confidence in the technical details involved with the field erection. This posed the minimum demand on the client."

Engineering design work for the new equipment installation and construction work was completed under an accelerated 90-day final design schedule. The finished silo was 85 feet tall and 39 feet in diameter. "The choice of *Columbian TecTank* for this project made good economic sense, and was borne out by the silo being erected on time and without incident," Schonbach said.

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