



**Kistler-Morse®**

*Direct Support Products*

*case history*

KM 02-02.CLA.04-01 August 1991

## **Market: Bulk Clay Storage, Blending and Loadout**

### **CUSTOMER**

Kentucky-Tennessee Clay Company, Mayfield, Kentucky, has eight clay facilities in five states.

### **PROBLEM**

The company's Gleason, Tennessee, facility needed monitoring help in two areas. They wanted to weigh-blend and batch clay ingredients in a manually mixed clay batching process, in which clay was mixed with water and other ingredients to create ball clay slurry for the sanitary-ware industry. Also, the facility wanted instrumentation to monitor load-out operations from 25- to 80-ton carbon steel silos using gravity flow inverted cones to fill trucks. "We kept having overloads and underloads, sometimes by as much as 4,000 pounds," says Bob Buckley, chief engineer at the Gleason plant, "Both the customer and the trucker want to make sure they're getting a full load, but the truck can't go over his 80,000-lb. gross weight limit." Buckley says the plant was underloading and overloading an average of four or five times per week, costing the operator 20 to 30 minutes of extra loading time on each occasion.

### **APPLICATION**

The clay company used Kistler-Morse Load Block transducers to batch clay transferred on a feed-belt conveyor to a mixing vessel. Kistler-Morse Load

Stand transducers were used to solve the under/over-loading problem in the truck load-out area.

### **BENEFIT**

Buckley says the Kistler-Morse monitoring system for the clay batching process gives a degree of accuracy within  $\pm 10$  lbs. per batched ingredient. "That gives us very adequate blending," Buckley says, "We use relay logic controls to batch it out. The operator of the loader has the recipe, it's not fully automated at this point."

### **CONCLUSION**

"We're getting good, accurate readings and have no problems with breakdowns," Buckley says. The Kistler-Morse Load Stands are accurate within specification on the 80-ton silos, so truck overfills and underfills have been eliminated. In addition, the company had increased batching accuracy and is saving time with its weigh-blend batching process, according to Buckley.