Zilkha Biomass Energy

NDC Delivers Comprehensive, In-Process Moisture Measurements to One of the World’s Largest Advanced Black Pellet Fuel Producers

“NDC’s NIR moisture measurement system has been a valuable tool to our plant. Their system helps us to identify process changes in real time and adjust to those changes quickly to optimize results.”

Charles Daw
Zilkha Plant Manager, Selma

Results

► Enhanced pellet quality
► Improved production efficiency
► Optimized drying process
► Short-term ROI, bottom-line benefits

NDC’s PowderVision sampling system

Zilkha Biomass Energy produces the Zilkha Black® Pellet, a proprietary water-resistant biomass pellet that is transportable and can be stored like coal. The company turned to NDC for their measurement application.

Complete Near Infrared (NIR) Measurement Solutions

NDC’s NIR moisture measurement system is installed at Zilkha’s new biomass pellet plant in Selma, Alabama. Six NDC CM710e NIR on-line gauges are installed at various points in the process. The CM710e gauges before and after the drying stages capture continuous, accurate, repeatable and real-time moisture measurements of the wood chips in process, allowing for better control and higher quality to ensure product meets target moisture specifications. The CM710e gauges after the dryer and at other process locations are equipped with NDC’s PowderVision sampling system. This system is installed in an enclosed duct with sampling cup which allows for the gravity-fed wood chips to be effectively collected, measured and pneumatically returned to the process on a continuous basis.

NDC’s HMIs provide supervisory access to the networked CM710e gauges and enable plant personnel to easily setup, calibrate and manage products. The HMIs provide feedback communications via Ethernet TCP/IP to Zilkha’s PLC for process monitoring and control.

Early reports indicate that NDC’s comprehensive measurement system is delivering immediate benefits to Zilkha. The implementation of precision, on-line instrumentation has eliminated the need for time-consuming, off-line gravimetric oven testing to confirm moisture levels.

Past Success with Zilkha

Prior to the Selma plant installation, NDC has also implemented two CM710e moisture gauges at Zilkha’s pellet plant in Crockett, Texas.