CMI CONTROL MASTERS, INCORPORATED
CONTROL SYSTEM INTEGRATION

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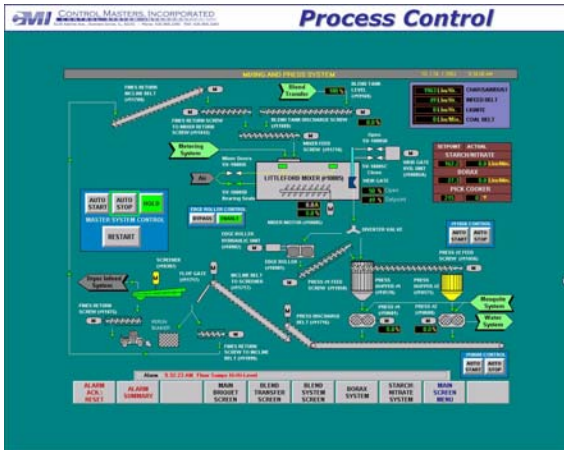HTTP://WWW.CONTROLMASTERS.COM

Control Masters Application Case Study

Process Control

Technologies
Process Control
Closed Loop PID Control
Data Logging and Trending

Services Provided
PLC Integration
SCADA / HMI Integration
Electrical Engineering
Control Panel Design
& Fabrication

Project Description

This project was a conversion of an existing Square D PLC controlled system with a USData operator interface to one using PLC 5s and RSView. The process being controlled was at a charcoal briquette manufacturing plant. The existing system controlled everything from the raw material feed to the ingredient mixing and briquette forming all the way through to the briquette drying.

The existing Square D PLCs were replaced with 2 PLC 5/80E processors one with 9 remote I/O drops and the other with 12 remote I/O drops connected via Remote I/O. A new control panel was built to house the 5/80Es while the remote racks were mounted in various existing panels throughout the plant.

While there was an existing Square D PLC program the program was not well documented and as a result a straight conversion to the PLC 5/80E was not possible. The program had to be rewritten from scratch based on a functional description provided by the customer.

The USData application was replaced with a redundant RSView application that ran on workstations in two separate control rooms. The RSView application was setup such that there were two distinct parts to it, one for the raw material feed and mixing and the other for the briquette forming and drying, and each RSView terminal was set up to boot to one portion of the application. Access was then restricted to just that portion of the application unless the user had the proper security level. The RSView application also provided data logging and trending of selected data points. The RSView terminals and both PLCs were connected over Ethernet and tied into their plant network.