

Wood Chip Dryer Automation

Lincoln, Maine



ADM provided detail design, PLC programming, integration and documentation for the control system used in the processing of wood refuse.

Our client's goal was to develop a packaged control system that permitted a high density of versatile I/O points as well as intuitive operator graphics that incorporated advanced visualization features to assist with process tuning and maintenance. The complete system provides for control of dryer in-feed augers, dryer drum rotation, dryer air flow, natural gas burner modulation and out-feed handling.

ADM provided detailed design effort to complete the OEM's concept for a compact control cabinet. Constraints for the control cabinet design included minimal available mounting space, use of components which are readily supported throughout the USA and a restricted design budget. The system was based on GE Fanuc's VersaMax modular PLC system in conjunction with an IDEC SmartTouch HMI panel. These components are integrated via industrial Ethernet.

Having completed the hardware and wiring designs, ADM managed the construction and testing of the control cabinet at a local assembly shop in order to ensure delivery of the equipment in coordination with the OEM's project schedule.

ADM developed PLC program application for the VersaMax processor based on process narrative descriptions provided by our client. The PLC program was structured to simplify commissioning and maintenance activities. ADM worked closely with the dryer OEM to develop intuitive HMI operator graphics with comprehensive trend screens to assist with process tuning and monitoring.

