



**"SUPERIOR ENGINEERING & INTEGRATION SERVICES"
A WHOLLY OWNED SUBSIDIARY OF SHAW ELECTRIC INC.**

Recent IAS Projects

Wind Farm NFPA-70E/NESC Arc Flash Study

Completed an arc flash study for an electrical utility wind farm. Built a computer model of the wind farm collector system and substation. Reported recommended breaker and relay settings, along with arc flash hazards. Generated equipment arc flash hazard labels.

Steam Turbine Generator and Boiler Control Retrofit

Designed and installed the hard wire control interface between the existing control stations, new motor control centers, new PLC and HMI controls to operate a coal-fired boiler and turbine electric generator.

Bulk Food Product Packaging System

Designed and implemented an automatic product packaging PLC and HMI control system to sort, weigh, and direct the packaging of bulk product.

Rubber Mixer Control System

Developed an operator control panel and data collection for a test lab tire rubber mixer; utilizing VFD, PLC, & HMI controls.

Municipal Combined Sewer Overflow

Designed and implemented a wireless automatic flow monitoring, recording, and sampling control system for the city's combined sewer overflow.

Power Distribution & Controls Engineering

Engineered and installed new medium and low voltage power distribution and control system for a food process plant. This expanded the plant's production capacity by 50%. A complete Design/Build package was implemented.

Grinder and Raw Material Automation

Automated new grinder and front end material handling system, including PLC control of VFD's, conveyors, grinders, flow-meters, level controls, and pumps.

Calendar Mill Controls

Designed and implemented a control panel for a calendar mill using VFD's.

Boiler Ash Handling System

Retrofit an automatic ash collection and storage system using PLC and HMI controls to collect ash particulates from the bottom of coal fired boilers.

Metal Plating Line Automation

Automate 2 metal plating lines using PLC, HMI, and wireless controls.

Roll Coater Line

Designed and implemented a production line to coat stock copper ribbon with nickel, heat treat it to 1100 degrees, and cut it to length on a continuous loop using PLC, Servo, and VFD controls.

INDUSTRIAL AUTOMATED SYSTEMS

Seed Corn Dryer Controls

Developed a control panel to automate the handling and drying of seed corn.

Wireless 150Ton Transfer Car Control System

Designed and implemented a wireless remote control system for 200-ton scrap metal transfer cars.

Grain Elevator Storage and Handling System

Designed and implemented an automatic grain unloading, loading, blending, drying, and monitoring system with PLC, HMI, and wireless controls.

Industrial 200Ton Crane Wireless Control System

Purchased automation hardware, developed program, and human machine interface for a large wirelessly operated overhead crane. Remote monitoring and diagnostics capabilities are significant cost savings tools.

Robotic Welder Controls

Designed and implemented a control system for 5 welding robots manufacturing automotive parts.

