

Concrete Batching Plant – Controls Upgrade

Challenge

John Henry Foster Company was contacted to replace an outdated control system that operates a self consolidating concrete (SCC) batching plant. The mechanical hardware was functional, but the outdated PLC system needed replaced.

Goals

- Replace existing PLC and PC with modern components
- Integrate new PLC with all existing field hardware, ensuring compatibility with the rest of the plant
- Shutdown time not to exceed 5 days
- Minimal scrap production upon startup
- Successful and consistent production of SCC with Automatic Moisture compensation

System Features

- Allen Bradley SLC ethernet based PLC
- Rockwell Software FactoryTalkSE Operator Interface
- Automation Direct CMore Touchscreen interface for plant-floor control
- Database storage of all batch recipes and batch data
- Automatic batch reports, acceptable to PCI standards
- "On-Demand," configurable report generation

Project Successes

- Completed ahead of schedule and within budget - requiring only 4 days of downtime
- All field hardware compatible with new PLC control
- No scrap batches produced - all materials used in tuning were recycled, and the first combined batch was usable
- Batch Moisture Compensation ensuring consistency

