



Case Study

Programmable Controllers at New Pellet Terminal

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Programmable Controllers are utilized extensively at the Lorain Pellet Terminal in Lorain, Ohio, USA. This facility was commissioned in August, 1980 making it the latest and most modern transshipment terminal on the Great Lakes. Several different types of iron ore pellets are received by self-unloading lake vessels, stockpiled and then loaded into smaller vessels which can navigate the winding Cuyahoga River or rail cars for delivery to various steel plants.

The Programmable Controller (P.C.) is a solid state control device that is fast replacing conventional hardwired relay or solid state systems for sequential control functions. The Lorain Pellet Terminal not only uses PCs for sequential interlocking and control of the conveyors, dust collectors, gates, shiploader, and train loadout station, but also for data logging. Many types of management reports are generated including the inventory status of each type of pellet and the mode of each shipment. Railroad freight waybills for each rail car are automatically printed out, correlating the information provided by the railroad company on punched cards with the actual weight of pellets loaded.

CRTs are utilized at four locations for graphic display of the system being operated, fault annunciation and display of electrical control ladder diagrams.

The Lorain Pellet Terminal is a model installation, utilizing many innovations and the latest technology. The PC system, which can be easily understood and maintained by plant electricians, will be an effective tool for both the operating staff and management.