



A Rockwell Automation Company

Lafarge Construction Inc. Load Out Control System

The Client:

Lafarge's first plant in North America was built in Richmond in 1958 with a single production line using one kiln. In 1967, the plant expanded to add a second kiln increasing production to 450,000 tons annually. In May of 1970,

Lafarge merged with the Canada Cement company becoming Canada's largest cement producer with operations from coast to coast.

The Requirement:

The existing truck loading control was implemented using conventional relay control, mimic panels, LED displays and hard wired pilot devices. This control system was experiencing minor failures as relays and pilot devices began to deteriorate. Lafarge was also faced with the need to upgrade the length of their scale to allow for larger trucks and modify the vibrating feeder hardware.

A PLC system provided the best solution to their control requirements since it resolved the following:

- simplified troubleshooting
- increased flexibility for modifications
- enhanced control capabilities
- reduced downtime through easy troubleshooting

The Design Solution:

Hinz and Lafarge worked closely to develop an Operational Description to define the control requirements. Lafarge had already established AB PLC 5/25's as a site standard. A PanelView MMI was used to present graphical information and detailed alarming to operations personnel.

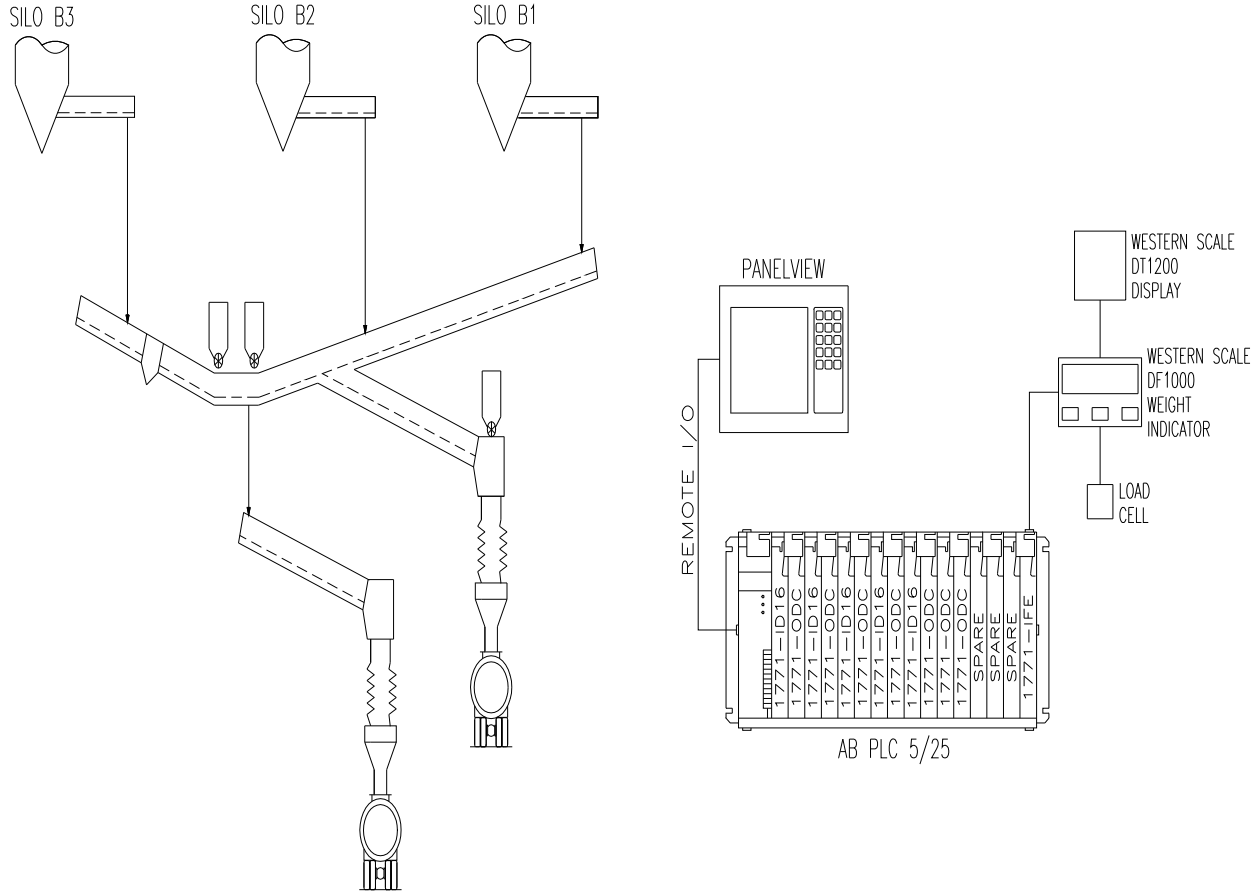
The PLC was installed in a new I/O cabinet placed in the MCC room. All field wiring was completed during the installation of mechanical equipment to ensure the shortest shutdown possible. The control system was designed to allow for automatic truck loading capabilities. After an operator initiated a start, the PLC

would sequentially start all of the appropriate motors on a group basis. The truck loading would begin at high speed to a preset weight entered by the operator. Once reaching 95% of the desired load the system ramps down to slow speed to complete the transfer.



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System Specifications:

- Allen Bradley PLC 5/25
- 160 I/O
- Allen Bradley PanelView Operator Interface
- Integrated Emergency Shutdown System

For further information or to contact a Hinz office near you, please check our website at:

www.hinz.com