HINZ
A Rockwell Automation Company

Northwood Panelboard Company
Northwood - OSB Dryer Upgrade

The Client:

Northwood Panelboard Company is jointly owned by Toronto based Nexfor and Mead Corp. of Dayton, Ohio. The mill is managed by Norbord Industries, a subsidiary of Nexfor. When the mill opened in June of 1981 it was one of the largest OSB mills of its kind. Technological improvements have been implemented over the years so that it is still one of the largest and most efficient OSB plants in North America with current annual production exceeding 400 million square feet.

The Requirement:

Northwood was experiencing high emissions and low strand quality with their existing rotary dryers. In order to maintain their competitive position in the market place, Northwood concluded that it needed to address this problem and also increase the throughput of the current dryer system. Two rotary dryers are running in conjunction with the new conveyor drying technology that they had just finished putting into their new Nexfor OSB plant in Tupelo, MS. This would achieve low emissions, higher throughput and a higher quality strand than conventional rotary dryers.

The Design Solution:

As a result of our involvement with Nexfor's Tupelo plant, Hinz was asked to complete the design of the electrical and control systems for this upgrade. The control system configuration was structured on the philosophy of providing individual PLC control for each process area. The base design for Norbord's Tupelo plant was reused where possible. Revisions to the PLC and HMI logic were made as required due to the differences between the two plants. One Allen-Bradley PLC 5/60 was used for the dryer and another one for the energy system control. Two ControlView stations with Touch Screens interfaces were used to monitor and control the process.

Northwood and its parent company Nexfor were one of the first companies to use conveyor drying technology. Since it is a new process, many man-hours of research from Norbord and programming by Hinz were involved in optimizing this new technology for the plant.

All motor control was installed and pre-wired within the MCCs by the MCC manufacturer to minimize errors and expedite the installation and commissioning process. Field I/O was enclosed in remote I/O cabinets and distributed throughout the plant as required.

The electrical system was designed to allow space in the future for a second dryer and energy system addition. The design of the electrical system included the coordination with the utility, 12.5kV incoming U/G line, 12.5kV outdoor vacuum breakers, 12.5kV/480V transformer, substation grounding, 277V grounding resistor, 480V PDC, 480V MCCs, lighting transformers, 480V diesel generator and all mounting and junction box details.

Hinz was responsible for selecting the contractor, construction supervision, plant commissioning and startup.

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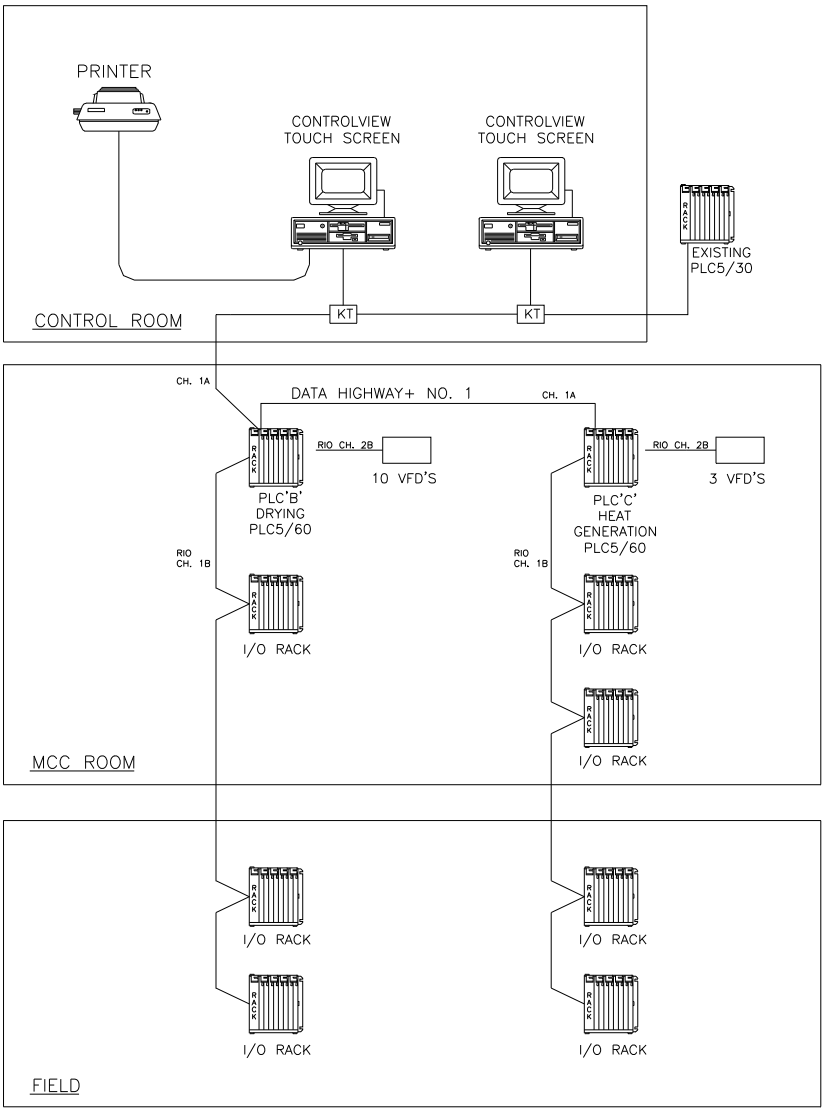

System Specifications:

- 2 Allen-Bradley PLC 5/60's
- 2 ControlView Stations
- 700 I/O
- 80 Analog Inputs
- 20 Loops
- 90 Motors, 3200 HP Connected

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

www.hinz.com