FLOUR MILL AUTOMATION

GENERAL MILLS
MONTANA

COMPLETION DATE: ON-GOING

INDUSTRIAL RESUME

Key Facts and Highlights:

- ECI Staff have supported this facility for 25 years and counting.
- Fully automated flour mill, wheat tempering, and product delivery systems.
- Utilizes Allen-Bradley ControlLogix and PLC-5's with a total of over 13,000 rungs of logic.
- HMI using Wonderware InTouch includes over 300 control screens.

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Electrical Consultants, Inc.
www.electricalconsultantsinc.com

Project Description:

This project included the automation of the General Mills flour milling facility in Great Falls, MT. which produces 1.2 million pounds of flour daily.

ECI staff have been involved in the mill automation since 1991 when the manual controls were first removed and replaced with Allen-Bradley PLC-5 Controllers. Since then, the same staff have maintained and upgraded the system as needed, including the addition of an entirely new mill running parallel beside the first, automation of the wheat tempering systems and grain storage facilities.

By 2001, the Great Falls mill was the most automated mill under the General Mills banner and continues today to be a technology leader within the industry.

The system utilizes both Allen-Bradley ControlLogix and PLC-5 processors. There are a total of six different PLCs responsible for different aspects of the process, all interfacing with each other fully to maintain seamless control of the entire process.

For HMI, the system consists of seven separate workstations running Wonderware InTouch, giving operators quick and easy access to the system from almost any location within the mill. Operators can control recipes, product conveyance, tempering operations, and packaging systems from these central locations.

ECI Staff have supported this facility for the past 25 years, providing maintenance and upgrades in a timely and efficient manner.