

## PM Control System

### Pine Falls Paper Co. Ltd\*



As part of an overall mill modernization program, Pine Falls decided to replace the control system on its two newsprint machines. Two goals for the project were set: a safe transition and no lost production; both of these objectives were successfully met.

The control system replacement consisted of:

- a set of redundant controllers for each process group
- six HMI (human-machine interface) operator stations
- a new rack room containing six I/O cabinets

The following methodology was used:

- as much of the existing field wiring as possible was re-used
- new cabling consisted of multi-conductor cable from new I/O cabinets to existing junction boxes
- existing wiring terminations were audited and documented on wire lists and loop sheets
- planning of the shutdowns started several months prior to the first migration

- the work was scheduled for three 12 h shutdowns, with detailed procedures prepared for each shut
- a master checklist was maintained in the rack room during each shutdown
- the configuration was based on the on-line configuration from the existing control system
- the new software was extensively tested prior to installation (i.e. 750 h)
- a lock, tag and test safety procedure was used for each power supply

Some highlights:

- instruments with HART protocol were easily tested by one technician, while conventional instruments required two technicians
- the work plan progressed very well compared to the schedule, leaving sufficient time to deal with unexpected drive-related problems

#### Project statistics

<b>Location</b>	Pine Falls, MB
<b>Production capacity</b>	500 tpd
<b>Grades</b>	newsprint
<b>Project duration</b>	9 mo
<b>PM1 I/O</b>	215
<b>PM2 I/O</b>	122
<b>Common I/O</b>	64

\* subs. of Tembec Inc.