



Product 1100 Series Magnetic Level Indicator (MLI)
Application Condensate Collection Tank for Pulp & Paper Plant
Industry Power/Pulp & Paper

Challenge A Sales Representative for SOR® was asked to make recommendations for level control on a combined condensate collection tank located in a large pulp & paper mill in Louisiana who was rushing to install a new tank due to concerns with aggressive corrosion of the original vessel.

- The existing condensate tank had a simple sight glass for local visual indication, and an outdated pneumatic differential pressure transmitter for continuous analog level measurement back to the remote DCS operator station.
- The differential pressure transmitter measured back pressure on an air “bubble” line that was run from a top vessel penetration into the fluid near the bottom floor. Pneumatic pressure switches were also installed in the bubble line for inferred discrete high and low condensate level alarms and to provide contact closure for relay – based control of dual/parallel pumps moving the condensate from the tank to other collection systems. It is common to use bubble lines and pressure switches for discrete level control of clean fluids in years past, but newer instrumentation solutions such as those from SOR, make this cumbersome and instrument air consuming method no longer necessary.

Solution After conferring with the mill process control department, the decision was made to see if a magnetic level indicator could be supplied within the compressed lead time requirement of two weeks. The use of an 1100 Series Magnetic Level Indicator (MLI) in this application would provide upgraded visual indication, even in the compact and dimly lit area where this tank was to be installed, and would also provide for external adjustment of level switches for alarm and pump control via the DCS – something the customer found very appealing.

- This particular mill had used ABB/K-Tek for most MLI applications in the past. SOR provided very fast quote response and committed to the two week delivery schedule the competitor suppliers could not.
- SOR custom designed the MLI which included a standard electronic differential pressure transmitter for continuous level indication on the replacement tank and utilized level switches for the discrete pump control. SOR also provided an insulation blanket.
- On the day of installation, the electrical contractor had questions about wiring of the level switches on the MLI. The SOR representative reviewed the specifications and wiring instructions in the supplied literature and was able to advise the contractor on the proper wiring orientation to make the pump control and DCS alarm indication work flawlessly.
- The customer was very pleased with the installation and performance, commenting that future magnetic level indication applications would go to SOR.