

New Features at Project Tiger in Behai / China

P. Bülund, Stora Enso Behai Mill / China
E. Schrapp, Siemens AG, Erlangen / Germany



¹ The picture shows the Stora Enso's new consumer board machine at Beihai Mill, Tieshangang (industrial zone of the Guangxi region and 40 miles outside of Beihai city), successfully started production on 26 May 2016.

With an investment of EUR 800 million, this is the largest Nordic direct investment in China, and a significant investment in the history of Stora Enso to benefit from the growing demand in China and Asia Pacific for high-quality consumer board, of which more than 80 per cent today is imported to China.

The project started from a greenfield site. In addition to the board machine, it includes a full site with infrastructure, power plant, water and effluent treatment capacities, a bleached chemo-thermo-mechanical-pulp mill (BCTMP) with an annual capacity of 220 000 tones. The board machine is expected to reach full production within 18–24 months. In full operation, the mill will have an annual capacity of 450 000 tones of liquid packaging board and other high-grade paperboard products.

For this project Siemens was awarded as a sole supplier for electrification and automation, starting from a 59MW steam-turbine with PCS7 automation system, 220kV/110kV HV and 35kV MV power distribution including a PCS7 based SCADA system, low voltage power distribution, motors and single drives, SIPAPER drive systems, a totally integrated mill wide PCS7 DCS System and other electrical subsystems, so as mill wide detail engineering for the overall electrical installations, incl. commissioning and start-up.

As well had been executed and implemented in this project newest digitalization features. As i.e. the engineering had been already partly executed in COMOS. In combination with the newest version of PCS7 , SMIT possibilities and installed CPAS (Control Performance Analytics) the bases for extended digitalization in the features i.e. the development of Virtual Twin structures and remote operation possibilities. Beside the mentioned very powerful and cloud based CPAS Tool, implementation of additional remote diagnostic systems for the 21MW Refiner motor and steam turbine are already applicable. This allows in the future to run predictive maintenance solutions on a level never had been installed before. This assures that Stora Enso will continue to be the world-leading producer of liquid packaging board and other high-grade paperboard products, which is one of the most demanding products in this industry, based on and with the most advanced digitalization solutions from Siemens.

¹ <http://renewablepackaging.storaenso.com/news/>