

Freelance

ABB's distributed control system used by China's largest producer of soda ash



Freelance, ABB's distributed control system, is helping China's largest soda ash producer expand its marine chemical industrial chain and, ultimately, boost the local economy and chemical industry at large.

Shandong Haitian Biochemical Co. has undertaken a one-million-ton soda ash project in Shandong Province. It has an annual capacity of 400,000 tons of low-density soda ash, and 200,000 tons of light-density soda ash. Annual sales revenue is expected to reach 1.89 billion yuan.

As the largest application of Freelance in soda ash production, it took ABB about a month to install the system from May 2008 to June 18, 2008 – the shortest work cycle for similar equipment.

The Freelance distributed control system is applied in eight work sections, namely salt water, lime, evaporation, decarbonation, compression, light ash, dense ash and packaging. The control room of each work section communicates with the central control room through a

10/100M fiber-optic loop network. The central control room is equipped with 14 pairs of redundant AC 800F controllers, one engineer station, 23 operator stations, and as many as 6,500 I/O points.

The project has also adopted PROFIBUS redundant communications, with Modbus connected to nine touch screens for lab tests.

Soda ash is mainly used in the making of construction materials, chemicals, farm chemicals, non-ferrous metals and textiles industries, thereby making it an important component of the national economy. The Shandong Haitian Biochemical Co., Ltd. is the flagship player in China's soda ash industry.

The project has won the "2008 Science & Technology Outcome Award" from the China Instrumentation and Control Society, attesting that ABB's automation solutions have the approval not only of the customers, but also the authorities in the industry.

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