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Siemens Autonomous Stockyard Management System comes to China

- **Higher performance, increased accuracy, full utilization of the stockyard area, and optimized energy consumption compared to staffed operation**
- **Pilot project for Jiangsu Binxin Special Steel Material Co. Ltd. is a first step towards intelligent upgrading of plants**

To improve air quality in China's urban centers, part of the country's counter measures has resulted in stockyard of iron, steel and the production of other industrial activities to move to indoor facilities instead of traditional outdoor locations. To take an industry leadership role, while continuing to meet expanding market needs by increasing production capacity, the Jiangsu Binxin Special Steel Material Co. Ltd. (Binxin Steel) decided to upgrade its plant intelligence by moving to an innovative autonomous stockyard management system from Siemens. This also has the advantage of overcoming the challenge of hiring and retaining skilled workers and engineers, while simultaneously providing continuous, safe, secure, and reliable operations. This project is a first step towards upgrading of the company`s plant intelligence.

To optimize throughput times and guarantee requested quality output, storage and transport systems are an important part of advanced facilities for the transfer of bulk materials such as ore, coal and flux. What's more, with autonomous operation of stackers and reclaimers, Binxin Steel will be able to achieve higher performance, increased accuracy, full utilization of the stockyard area, and optimized energy consumption compared to staffed operation. Siemens' advanced automation solutions secure autonomous operation of the end customers' stackers and reclaimers, reducing operational costs and achieving a smoother and safer operation with less wear and tear on the mechanical parts of the equipment.

A core element of the management system is the stockyard 3D model with a record of both quantity and quality of materials. The model is updated regularly with data delivered by stackers and reclaimers. This means customers such as Binxin Steel also benefit from higher safety as no operators is needed at the machines: after working area and parameters for each job are specified, the details are calculated automatically and approved by the control center – then the job is transferred to the machines. The rest is automatic. To prevent collisions between machines and other objects and constructions, and therefore equipment outages, the stockyard machine comes with a protection system that uses data which were delivered by sensors. Zhongye Changtian International Engineering Co., Ltd. (CIE) has serviced China's steel industry for more than 60 years as a general contractor of engineering, procurement and construction (EPC), and this time undertook the Binxin Steel Stockyard project using Siemens industry leading autonomous stockyard management technology. CIE is an EPC and Class-A design institute with technical integration ability, plus its own sintering technology.

This press release is available at www.siemens.com/press/PR2018120116PDEN

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