System 800xA Siemens DCS migration to ABB's System 800xA at Baramati Agro



India has been one of the powerhouses of sugar production for the last decade, rivaling Brazil as one of the top producers in the world. With numerous industry challenges such as changing consumption patterns and government regulations, the only certainty producers should expect is in their plant control systems.

A leader in agriculture

Baramati Agro has two decades of experience in the diversified agro-business with its head office based in Baramati, Maharashtra, India. Traditionally their main business focus has been the poultry sector and now they have diversified and grown in the animal feed, chicken processing, sugar, distillery, power and other agriculture related business.

Baramati Agro Ltd has a 4300 TCD (tons crushing per day) plant at single location, producing the best quality sugar using state of the art technology. This plant has process automation, efficient centrifugal and sugar gradation equipment and sugar silo system for packaging.

In the Indian market, they cater to the sweetener needs of quality conscious bulk consumers from various sectors such as soft drink, dairy, confectionery, ice cream etc. They are also exporting sugar to various countries in Middle East, Europe, Far East and West Africa.

The Baramati Agro sugar plant is located 120 km from Pune and is a green field project with 5000 TCD capacity. Established in 2007, the plant has a 65 KLPD distillery and a 29 MW cogen power plant. However, the production was hampered on a daily basis due to inconsistent automation behavior. The plant needed more manpower to ramp up production capacity. Furthermore, there was no proper MIS for production and maintenance. Process knowledge and automation expertise were needed to sort out the problem.



System Integrator With Broad Experience

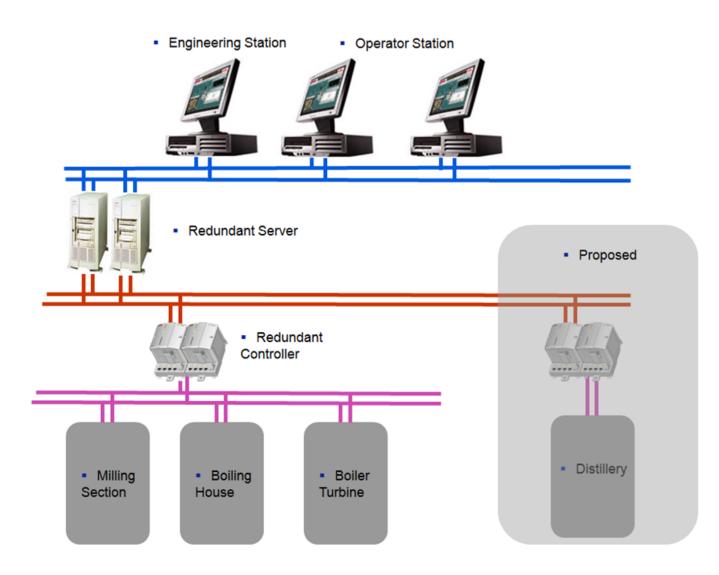
Sibella Technologies Pvt. Ltd. is the leading industrial automation and industrial information technology (IT) solution provider for management information systems (MIS) and manufacturing execution systems (MES) in India. Their products are complemented by professional services, customer support and training in numerous industries such as food and beverage, pharmaceutical, metal, mining, manufacturing, facilities, water etc.

From 2007, Sibella has been with ABB for PLC and DCS products and solutions. Besides receiving the award for number one channel partner for AC800 products in 2009 from ABB, they are ISO and CE certified. To serve the automation market, they have more than 60 engineering staff, demonstrating their commitment to excellence.

"From the day we have commissioned the ABB System 800xA DCS, our plant has been working fine. ABB's aspect object technology provides us with complete plant information, history and diagnostics which further helps us to improve our sugar and cogeneration process.

The System 800xA DCS is a user friendly, robust and maintenance free system. We can confirm that for the last 3 years, plant operations have been stable and we are getting the required support from ABB's value provider Sibella Technologies."

-- Mr. Arun Pore Plant In-Charge Baramati Agro







In phase one of the solution to replace the current system with ABB System 800xA for Baramati Agro, Sibella undertook the task of stabilizing the Siemens control system by using the process knowledge for the FY0809 season. Phase two took place in the first off season, where the Siemens control system was replaced with ABB System 800xA for the boiling house and the mill automation. Sibella performed well enough that they also received the 29 MW cogen power plant project in the same site. The next proposed phased is to use System 800xA for the distillery plant in order to create a homogeneous plant control system for better control and resource optimization.

Improved throughput and communication with System 800xA

As a result of replacing the faulty control system with ABB System 800xA, the benefits have been tremendous. Throughput for the plant increased by 25%, while plant availability increases was 15-20% and manpower costs reduced by 50%. Providing better safety interlocks ensured the equipment were safeguarded. Information was more readily available through the mobile phone's SMS function for the maintenance engineers and plant managers. The plant management receives the production report on a daily basis through email.



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